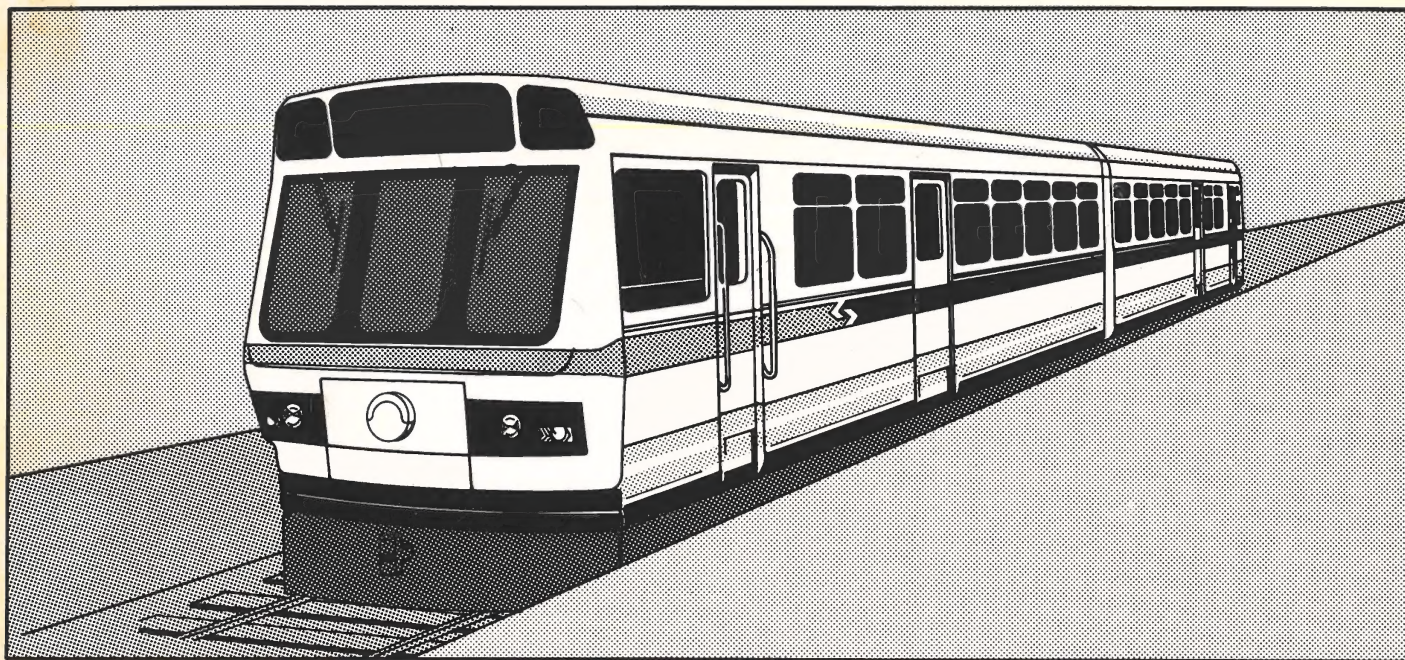


Jesse H.



# **A PLAN FOR COST-EFFECTIVE SUPPLEMENTAL SERVICE**

**USING LIGHTWEIGHT DIESEL RAILCARS**

**Regional High Speed Lines  
Non-Electrified Territory**

***December 1984***



**Southeastern Pennsylvania Transportation Authority**



SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

CONTENTS

I. The Executive Summary.....	p. 3
II. The Background.....	p. 8
History	
Recent Developments	
Opportunities	
Strategy	
III. The Operating Service Proposal.....	p. 14
Norristown - Phoenixville - Royersford - Pottstown.....	p. 20
Fox Chase - Southampton - Newtown.....	p. 32
IV. Annual Operating Impacts - Revenues and Expenses.....	p. 36-51
Ridership History and Projections.....	p. 37
Revenue Projections	
V. The Vehicle Characteristics.....	p. 52
VI. The Legal Opinion - Recommended Structure.....	p. 56
VII. The Financing and Recommended Action.....	p. 69
Initial Start-Up Costs and Financing.....	p. 73
VIII. Proposed Implementation Schedule.....	p. 75
IX. Recent Publicity on Prototype.....	p. 77

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

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Lightweight Diesel Railcar Report

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SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

**I. EXECUTIVE SUMMARY**

**Background**

Self-propelled non-electric railcars provided service to portions of the SEPTA region, and points beyond, until the useful life of the vehicles utilized in this service was exhausted. A reliable, affordable replacement vehicle for continuation of these services had not been available prior to development of the Lightweight Diesel Railcar (LDR). Electrification of some segments of the RHSL system, is, at best, several years from completion. There is an increased demand for RHSL service along non-electrified rail corridors within the SEPTA region, where work trips to Center City have increased dramatically. The introduction of the LDR, a unique rail vehicle using the standard component parts of existing rail and bus technologies, presents an opportunity for SEPTA to reestablish RHSL service to expanding market areas within the SEPTA region, and to operate this service on an efficient, cost-effective basis. The proposed service should boost the total RHSL ridership as well as improve the revenue-to-cost ratio of the RHSL division.

**The Service Proposal**

Operations Planning has identified two corridors for operation of the LDR vehicles in initial service. The Pottstown-Norristown segment of the former Reading Main Line, and the Newtown-Fox Chase segment of the Newtown-Fox Chase Line. Both of these services would operate totally within the five county SEPTA region.

The relatively short lead-time for vehicle delivery, (about nine months from date of order), presents the possibility that the Pottstown segment could provide



## The Service Proposal (continued)

significant relief for commuters to Center City during the 1986 reconstruction season for the Schuylkill Expressway Project. The track conditions are excellent and SEPTA retains operating rights at no cost as part of the 1983 Conrail Transfer Agreement. Full service is proposed, meeting virtually all electric trains at DeKalb Street Station, in timed, connecting service. Future operations could be extended to King of Prussia and Reading. A new park-and-ride station is proposed at Abrams, near King of Prussia. 156 P

Fox Chase-Newtown service could be implemented in 1986, as soon as sufficient vehicles are available. Like Pottstown service, trains would operate to connect with virtually all electric trains to Fox Chase, providing schedule flexibility. Newtown service requires a longer lead-time to start than does Pottstown service because of the necessity of installing two passing tracks and associated signals. Successful operation to Newtown can assist in the establishment of more accurate market penetration data and expected ridership on the line as an element of the electrification study. FX-NE First

Should these vehicles perform as expected, further extensions can then be considered to King of Prussia, Quakertown, Bethlehem, Allentown and Reading. If an attractive, economical, and reliable service can be demonstrated utilizing these LDR vehicles on the initial service to Pottstown and Newtown, SEPTA should be able to demonstrate the advantages of this operation and seek funding arrangements for service to points outside the SEPTA region.

The operation of these vehicles, even under conservative operating assumptions and the existing fare structure, will achieve about a 75% annual revenue-to-cost operating ratio by the end of twelve months.

### The Financing Plan

In order to implement service as soon as possible, it is proposed that SEPTA participates in a leasing agreement which provides for all initial start-up costs, including the acquisition of the initial eight (8) 2-car train sets of LDR equipment. Station and other facility improvements would be made under SEPTA's direction as part of the lease agreement and start-up budget. A total initial start-up package of approximately \$10 million is detailed, and is proposed to be financed through the execution of an initial ten (10) year lease. No State or Federal capital funds would be utilized. Lease payments would be net of depreciation benefits available to private enterprises to whom lease payments would be made. The net annual lease cost to SEPTA is estimated to be approximately \$1.4 million. SEPTA will seek additional operating funds from the Pennsylvania Department of Transportation for the first three years of operation of the Pottstown service as part of the Schuylkill Expressway reconstruction project.

### Other Potential Benefits — *important*

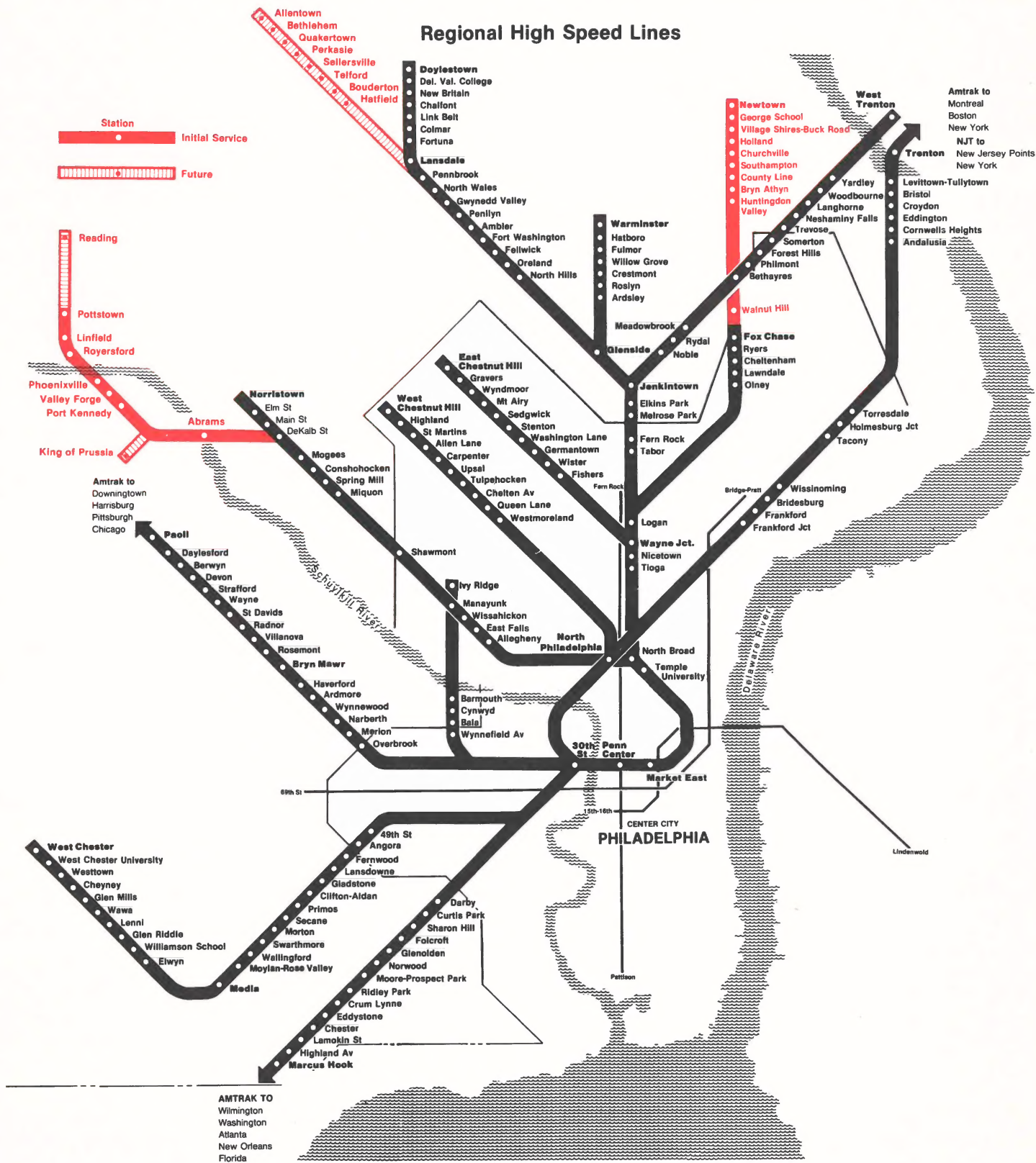
As part of the terms for acquisition, all vehicles and component parts destined for SEPTA will be shipped via the Port of Philadelphia on American flag carriers. American made components would be utilized wherever practical, especially in the areas of diesel engines, and interior finishes such as seating, window glazing, etc. Final assembly, vehicle maintenance and vehicle maintenance training shall be performed in Philadelphia. If the vehicle is successfully marketed to other properties for use in the United States, east of the Mississippi River, the port of entry for components and parts, the major location for finish assembly, sales, parts distribution and training facilities will be Philadelphia. This project will bring a new major international company to Philadelphia, which will train and employ local labor.

Recommendation (continued)

Based upon the analysis presented in this report, it is recommended that SEPTA make appropriate arrangements to acquire sufficient LDR vehicles to operate the initial supplemental RHSL service to Pottstown and Newtown and to make other start-up improvements as detailed in Section VII. All necessary action should be taken by SEPTA which will result in the Pottstown service being operational by the end of Calendar Year 1985, or as soon thereafter as possible, with Newtown service to be operational early in 1986.



# Proposal for Lightweight Diesel Rail Car Service





SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

**II. BACKGROUND**

**History**

**What are these lightweight Railcars?**

Use of alternate passenger equipment occurred on light-to-medium density branch lines of nearly every railroad in the United States at some point in the 1900's. Most of these vehicles were self-propelled, were gasoline/diesel/or oil powered cars and were called "doodlebugs", "gas-electrics", "skunks", rail diesel cars, and in the case of the New Haven railroad, a "rail-bus". All of these vehicles shared a common heritage: their development and introduction to service was an economy measure designed to (1) reduce the cost of service from that of conventional railroad equipment and (2) improve the operating ratio of the service, often through reduced manning requirements.

The most recent example of widespread use of this technology was the Budd Company's successful production of a stainless-steel, self-propelled, multiple unit-capable, rail diesel car (RDC), commonly called, even to this day, "the Budd car" or "Buddliner". Hundreds of these vehicles were produced in Philadelphia during the 1950's and early 1960's for use all over North America and in several other countries. The largest fleet was operated in Boston, with the Boston & Maine Railroad's 106 cars configured for both long-distance, intercity service, as well as for commuter operation. Jersey Central, Pennsylvania-Reading Seashore Lines and the Reading Company also used these vehicles locally, and SEPTA itself operated a fleet of 19 units under Conrail, and attempted to run the Fox Chase-Newtown service with the last of the operable, 30 year-old cars. Their recent demise from service was caused primarily by 1) old age; 2) lack of standard easily available replacement parts and 3) the high cost of maintenance of the out-of-production diesel engines.

### **What are these lightweight Railcars? (continued)**

These Budd RDC cars were the only successful new technology introduced in diesel passenger rail service in the last 30 years. They were air conditioned, bi-directional and comfortable. All recent domestic attempts to duplicate its success with a second generation diesel vehicle have failed, largely because of technological sophistication and a failure to break away from traditional railroad designs.

### **Recent Developments**

#### **What has been developed to date?**

~~Domestic attempts~~ in the 1970's gave birth to the supposed successor to the RDC's of the 1950's and 1960's. This second generation self-propelled vehicle was dubbed SPV-2000, and costs in excess of \$1.2 million per car. While about 50 units have been produced to date, operating results over the past six years have not met expectations. The State of Connecticut (14 cars) and the State of New York (10 cars) both purchased SPV-2000 vehicles between 1979 and 1981. Both are now seeking replacement vehicles. High standards for the performance and reliability of any new vehicle are essential, as is the necessity of easy maintenance and available parts. The SPV-2000 has not yet proven itself able to meet any of these requirements.

Recognizing the need for a simple and efficient rail vehicle, with the comfort of conventional railway vehicles, two British organizations put their respective corporate heads together to develop a new lightweight diesel railcar. British Leyland, one of the world's largest producers of buses, teamed up with the engineering division of British Rail (BRE) to develop a new generation rail technology that exhibits the following characteristics:



#### What has been developed to date? (continued)

- simple design, making use of standard component parts of existing bus and rail vehicles;
- lightweight construction for better acceleration and fuel efficiency, with minimum track wear;
- railway ride quality and seat comfort;
- minimum manning for maximum efficiency and maximum service levels (to introduce or preserve rail service on light-to-medium density branch lines);
- provide modern, attractive rail service where electrification cannot presently be justified;
- affordable purchase price (\$325,000 per unit); - low!
- fast production (7-9 months from order);
- local assembly possible.

#### What are the results?

BRE-Leyland produced several prototype diesel railcar units in the 1970's before entering regular production. Presently, 20 2-car train sets (the standard configuration, although single cars are available) ~~are in operation~~ in Britain, Denmark and other countries. One single car unit is in the United States under sponsorship of the Federal Railway Administration (FRA) and the Urban Mass Transportation Administration (UMTA), a division of the United States Department of Transportation. This test vehicle has operated in Rhode Island, on Amtrak's Northeast Corridor and is being tested in revenue service in New Orleans, Miami and Ohio. (See news articles on the favorable operating results in New Orleans in Section IX). An additional 100 2-car train sets are in production in Britain for use on many of British Rail's non-electrified branch lines. Interest in this technology in the United States has prompted the establishment of Associated Rail Technologies, Inc. (ART), an American firm seeking to satisfy the market demand for such vehicles and seeking to establish domestic production.

## Opportunities

### **Can SEPTA benefit from operation of this vehicle?**

SEPTA has recognized its obligation to provide service to the five county region, and since the takeover of commuter rail operation in 1983, much service has been restored on the electric lines. It indeed was a painful decision for SEPTA to discontinue most non-electric service in 1981, due, not only to Conrail's escalating costs, but also to the high cost (and poor reliability) of maintaining the aged fleet of diesel equipment.

The cost of electrification has also escalated to a point where the cost to electrify even the 15.3 mile Fox Chase-Newtown Line is currently estimated to exceed \$16 million. There is no rail service currently operating on this line. There is also no service to Quakertown or Pottstown, both population centers within SEPTA's district, but unfortunately located beyond the limits of the electrified commuter lines -- an electrification which was installed in the early 1930's.

The possible use of these new diesel railcars on one or more of these lines holds out the opportunity for reestablishment of service to many points in the SEPTA district in the short term, and at far less cost than any currently known alternative.

In addition, service to other logical points which have a historical or commercial link to Philadelphia might once again be practical, attractive, cost effective and affordable. Such places as Reading, Bethlehem, Allentown, and even through-service to Newark via Jenkintown, become real possibilities.

The configuration of vehicles produced to SEPTA specifications would permit one man operation, a major improvement over old rail work rules.



## **Strategy**

### **How would SEPTA propose to obtain such vehicles?**

The service section of this report was authored by Operations Planning and details an initial operating proposal. However, once a decision is reached to proceed with this program, the Financing Plan in Section VII is the plan we would intend to implement in order to obtain, use and maintain the vehicles. These component vehicle parts would be shipped on American flag carriers and arrive as partly assembled units entering the U.S. via the Port of Philadelphia, and would be finish-assembled in Philadelphia.

Major vehicle parts would be of American manufacture such as diesel engines, window glazing, seating, and other components, thereby satisfying "Buy America" provisions.

### **Why are these vehicles financially attractive for operations?**

The simple design, easily-available, standardized component parts and single-man operation make this an extremely efficient (revenue-to-cost ratio) vehicle to operate, even with modest passenger traffic. On the Conrail-owned lines, Quakertown-Bethlehem/Allentown, and Norristown-Pottstown-Reading, SEPTA will pay little or nothing for track use, due to the reciprocal track agreement with Conrail for the operation of its freight on our lines. The operating cost per rail vehicle-mile on these segments could be the lowest on the SEPTA system; RHSL or transit.

The single man operation of these vehicles exhibits many of the characteristics of our light rail vehicles. Our existing RHSL work rules present the opportunity for a practical service application and a financially viable operation.

It is expected that within 12 months of start-up on a line, at least a 75% operating ratio will be achieved. Should ridership exceed all expectations,

**Why are these vehicles financially attractive for operations?**

Justification for electrification can be established and documented. The diesel railcars used on lines which ultimately become electrified can be utilized for service improvements on other lines or for additional new or extended rail service.

**Who would operate these vehicles?**

As this service is fully integrated with other RHSL service, including fares and ticketing, it is assumed that the service will be operated by RHSL personnel.

The next section details the Operating Service Proposal.



SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

**III. THE OPERATING SERVICE PROPOSAL**

Prepared by Operations Planning Department

The Lightweight Diesel Railcar appears to be a feasible vehicle to provide service on the non-electrified and lightly patronized rail lines in the SEPTA region.

These vehicles, also known as "railbuses", are self-contained two-axle units which can be operated with a single employee. We believe they are economical to operate, and their purchase price is considerably less than for an electric Silverliner.

It is recommended that eight 2-car train sets of the Lightweight Diesel Railcars be obtained for service between Norristown and Pottstown and between Fox Chase and Newtown.

There are at least four non-electrified areas where LDR's could run. Each possibility was studied.

1) New York Short Line - A consultant's study done for the City of Philadelphia recently recommended against any rail service on this line. Until it is demonstrated that LDR's are able to run through the Center City tunnel, passengers boarding on the New York Short Line would have to transfer to electric trains at Wayne Junction to reach Center City. To be successful, the line would have to attract transferees from rerouted bus lines in the Northeast. This would mean a three-vehicle ride to reach Center City, which would not be an attractive incentive to ridership.

2) Lansdale to Quakertown - This line has definite potential for further passenger service. To be successful, however, the line would probably have to run to Bethlehem or Allentown, both of which are far out of the SEPTA service region.

Lansdale to Quakertown - (Continued)

The entire rail line is paralleled by an established interurban bus operation, although only six round trips operate daily. It is believed that this would not be a good line for the initial experiment, although it has definite future potential.

3) Fox Chase to Newtown - This line has the second greatest potential for passenger service. The track is in good condition and the area it serves is one of the fastest growing in the Delaware Valley. Because the line is single-track, two passing sidings and signals would be required before service could begin. It is not anticipated that any local passengers would be carried on this line; all passengers would be destined for Center City.

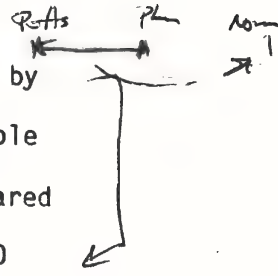
4) Norristown to Pottstown - This line has the greatest potential for initial service. It has high-speed track, only a few grade crossings, it is almost double-track throughout and completely signaled, it serves three large towns. it connects at each terminus with a network of local bus lines, it would attract shoppers who could transfer to buses to reach the shopping complex at King of Prussia, and it covers an area that will be seriously affected by the Schuylkill Expressway reconstruction work. In addition, the Norristown line is the most lightly patronized on the SEPTA system. Should it become possible to operate LDR'S into the Center City tunnel on a limited basis, it may be feasible to run through service from Pottstown to Center City. If the Pottstown line is successful, a logical extension would be to Reading, a city of 78,686 population. This would, of course, require discussions with Berks County regarding subsidy; Reading service should be considered at a later date.

The last Conrail diesel service operated for SEPTA - using Budd Rail Diesel Cars - ran with four-man crews and was expensive to operate and maintain. The LDR would be far less expensive to operate and maintain and offers the attractiveness



of one-man operation. In the proposed SEPTA configuration, a two-car train set would seat about 108 passengers.

Passenger service west of Norristown ceased on July 27, 1981. When the full service level of 14 round-trips was operated through the late 1970's, daily ridership was 1,600 at the stations from Phoenixville to Pottstown. A survey by SEPTA's Revenue Development Department shows that more than twice as many people from the area served by this rail line work in Center City in the 1980's compared to 1970. Based on this data and on past ridership, it is estimated that 1,200 daily passengers will use the Norristown to Pottstown line after a year of operation.



It is proposed to operate 23 round-trips between Norristown and Pottstown. The schedule of the LDR's between Norristown and Pottstown would be coordinated with the RHSL electric trains operated on Route R6 between Norristown and Philadelphia.

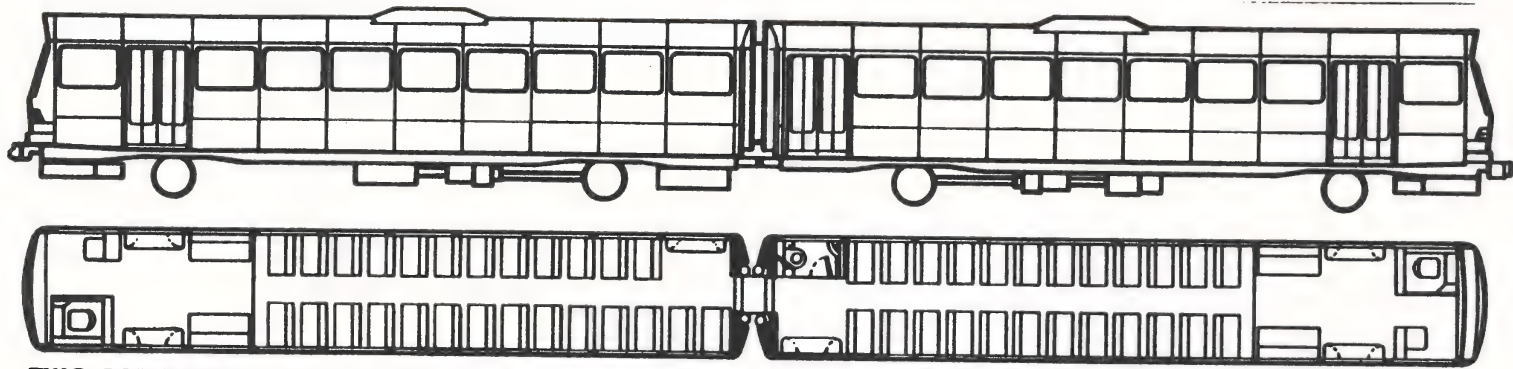
A new station would be built at Abrams, at Henderson Road and the railroad, in Upper Merion Township. This would serve the populous King of Prussia area. Other stations would include Port Kennedy, Phoenixville, Royersford, Linfield and Pottstown. At Phoenixville, the existing station has been turned into a restaurant and the platform fenced off. It may be necessary to construct a new station just west of Bridge Street. At Linfield, platforms and a shelter will have to be constructed. Existing stations at Port Kennedy, Royersford and Pottstown can be used.

Existing agreements with Conrail permit SEPTA to operate LDR's to Pottstown without paying any trackage rights. However, additional agreements with Conrail may be required for the use of stations and parking lots along the line. Preliminary investigations by Finance indicates Conrail is receptive to this proposal.

Seven daily freights trains are operated on the line, but with nearly all double track and CTS bi-directional signals, it is not anticipated that there will be scheduling conflicts.

There is an abandoned but relatively modern Conrail engine house at Abrams which may be feasible to lease as a running maintenance facility for the LDR's. Three of the two-unit versions would be required to operate the proposed schedule. One spare would be required. A total of four of the two-car train sets should be obtained for the Pottstown line.

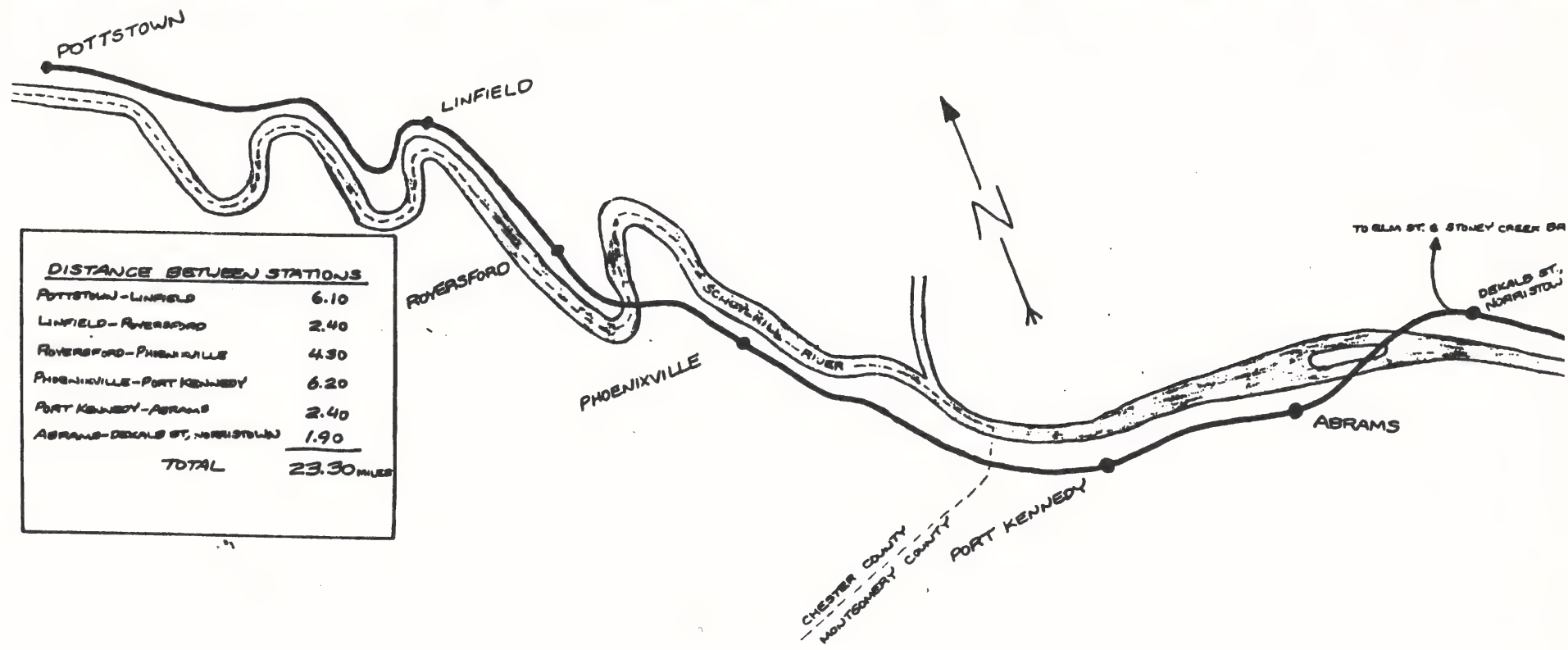
On the following pages are car plans, a map, a schedule, miles and hours operated, fares, mileage, freight movements, track speeds and photos of stations.



**TWO CAR BODY (2 PLUS 2 SEATING)**

Doors on front right would be moved further to front to facilitate fare collection.





# NORRISTOWN TO POTTSTOWN

## PROPOSED DIESEL RAILCAR SCHEDULE

WESTBOUND					EASTBOUND				
BLOCK	RHSL TRAIN		RAILCAR		RAILCAR		RHSL TRAIN		
	LEAVE	ARRIVE	LEAVE	ARRIVE	LEAVE	ARRIVE	LEAVE	ARRIVE	
	SUBURBAN	NORRISTOWN	NORRISTOWN	POTTSTOWN	POTTSTOWN	NORRISTOWN	NORRISTOWN	SUBURBAN	
	AM	AM	AM	AM	AM	AM	AM	AM	
1	--	--	4:43 - 437	5:18	5:30	6:08	6:11	6:56	
2	--	--	5:13	5:48	6:00	6:38	6:41	7:26	
3	--	--	5:43	6:18	6:30	7:08	7:11	7:56	
1	--	--	6:13	6:48	7:00	7:38	7:41	8:26	
2	5:55	6:38	6:43	7:18	7:30	8:08	8:11	8:56	
3	6:25	7:08	7:13	7:48	8:00	8:38	8:41	9:26	
1	6:55	7:38	7:43	8:18	8:30	9:08	9:11	9:56	
3	7:55	8:38	8:43	9:18	9:30	10:08	10:11	10:56	
1	8:55	9:38	9:43	10:18	10:30	11:08	11:11	11:56	
3	9:55	10:38	10:43	11:18	11:30	12:08	12:11	12:56	
1	10:55	11:38	11:43	12:18	12:30	1:08	1:11	1:56	
3	11:55	12:38	12:43	1:18	1:30	2:08	2:11	2:56	
1	12:55	1:38	1:43	2:18	2:30	3:08	3:11	3:56	
3	1:55	2:38	2:43	3:18	3:30	4:08	4:11	4:56	
1	2:55	3:38	3:43	4:18	4:30	5:08	5:11	5:56	
3	3:55	4:38	4:43	5:18	5:30	6:08	6:11	6:56	
1	4:25	5:08	5:13	5:48	6:00	6:38	--	--	
4	4:55	5:38	5:43	6:18	6:30	7:08	7:11	7:56	
3	5:25	6:08	6:13	6:48	7:00	7:38	--	--	
1	5:55	6:38	6:43	7:18	7:30	8:08	8:11	8:56	
4	6:25	7:08	7:13	7:48	8:00	8:38	--	--	
3	6:55	7:38	7:43	8:18	8:30	9:08	9:11	9:56	
4	7:55	8:38	8:43	9:18	9:30	10:08	10:11	10:56	
3	8:55	9:38	9:43	10:18					
4	9:55	10:38	10:43	11:18					
	PM	PM	PM	PM	PM	PM	PM	PM	

35 Min

35 Min

MILES OPERATED

48 x 23.3 Miles = \*1118.4 daily miles

HOURS OPERATED

Block #1 . . . . . 15.4 hours

Block #2 . . . . . 2.9 hours

Block #3 . . . . . 16.6 hours

Block #4 . . . . . 17.6 hours

\* 52.5 hours

\* Deadhead miles and hours to and from depot not included.



*Zone*  
FARES

<u>ZONE</u>	<u>STATION</u>	<u>ONE WAY PEAK</u>	<u>ONE WAY OFF PK.</u>	<u>10 TRIP</u>	<u>WEEKLY TRAILPASS</u>	<u>MONTHLY TRAILPASS</u>
3	Norristown (DeKalb St.)	2.50	2.00	23.00	18.50	68.00
3	Abrams	2.50	2.00	23.00	18.50	68.00
4	Port Kennedy	3.00	2.00	27.50	21.50	78.00
5	Phoenixville	3.50	2.00	32.00	24.50	88.00
5	Royersford	3.50	2.00	32.00	24.50	88.00
5	Linfield	3.50	2.00	32.00	24.50	88.00
6	Pottstown	4.00	2.00	36.50	27.50	98.00

MILEAGE

	<u>FROM</u> <u>SUBURBAN</u> <u>STATION</u>	
Norristown (DeKalb Street)	17.7	0.0
CP - DeKalb	17.8	0.1
CP - Island	18.2	0.5
Norris (junction w/freight line)	18.5	0.8
Abrams	19.6	1.9
Port Kennedy	22.0	4.3
Phoenixville	28.2	10.5
Royersford	32.5	14.8
Linfield	34.9	17.2
Pottstown	41.0	23.3

34.0  
17.7  
23.15

FREIGHT MOVEMENTS

5 - CONRAIL SCHEDULED THROUGH TRAINS

EASTBOUND

<u>TRAIN</u>	<u>BY PHOENIXVILLE</u>	<u>FREQUENCY</u>
PX PG	715 AM	Daily
AL PY	1159 PM	"
AL PG	1215 AM	"

WESTBOUND

<u>TRAIN</u>	<u>BY PHOENIXVILLE</u>	<u>FREQUENCY</u>
PG AL	1115 AM	Daily
PY AL	1230 AM	"

2 - DELAWARE AND HUDSON THROUGH TRAINS

NE - 84	NO RELIABLE	RUNS ALMOST
NE - 87	SCHEDULE	DAILY

1. UNIT TRAINS FOR BEASLEY'S POINT

RUNS THREE TIMES A WEEK

2. LOCAL FREIGHT SHIFTERS

WPEA - 3 - Daily Works - Phoenixville - Oaks Area

WPEA - 34 - Mon/Weds/Thurs/Friday works - Norristown Area



# TRACK SPEEDS

	<u>TRACK</u> No. 1 WB	<u>TRACK</u> No. 2 EB
Norristown (DeKalb Street)	25	25
Norris (Connection w/freight line)	50	35
Milepost 27.7		
Phoenixville Tunnel (Single Track)	35	
Milepost 29.6	35	35
Royersford Borough MP- 32	50 40	50 40
	50	50
MP 34		
Linfield Curve	40	40
MP 35.1		
Pottstown	50	50

NOTE: All speeds shown are for freight movements. Passenger movements could be 10 - 20 mph higher depending on class of track.



Location of proposed Abrams Station site near recent and ongoing residential development with adjacent land for parking.



Recently abandoned Conrail diesel engine maintenance building located near Abrams site.



Valley Forge Park (ex. Port Kennedy) Station. Renovated in 1976 with expanded parking for Bi-Centennial Exposition. Platform construction would be required. Good highway access to King of Prussia Malls in place.



Phoenixville Station - now the Columbia House Restaurant with access to tracks fenced off. New facility including platforms and improved access required.





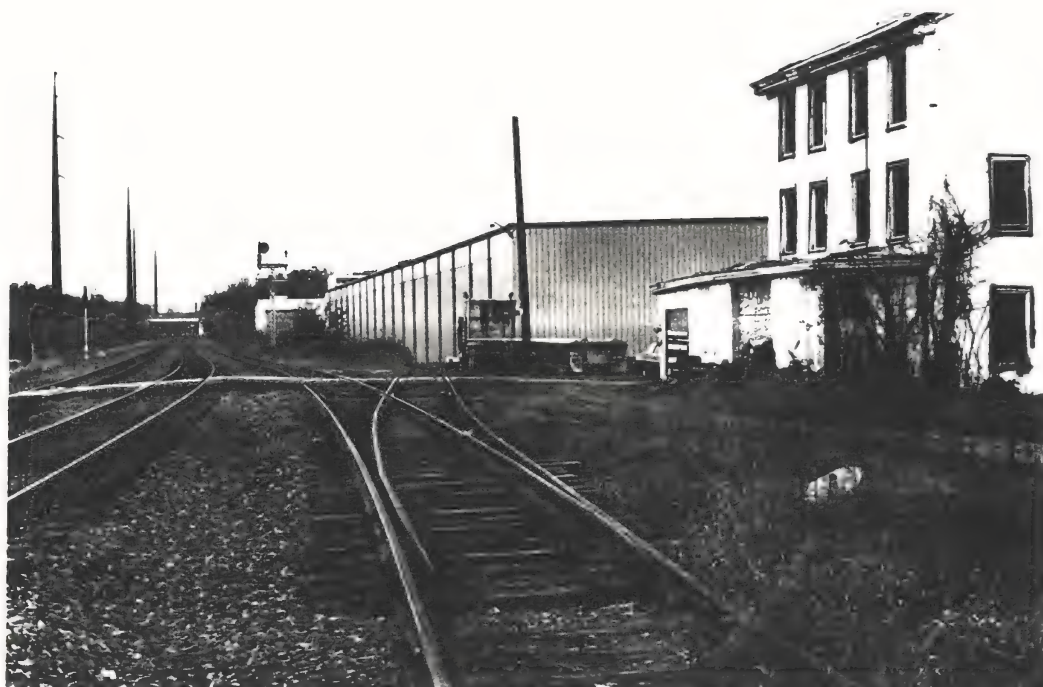
Pottstown Station - Parking lot and building intact. Platform work necessary. Crossover point less than one mile west of station.



Pottstown Station - Inbound side waiting room building still in tact with platform work required.



Royersford Station - Virtually intact with original parking lot. Platform work necessary to access main tracks.



Linfield Station - Old Linfield site where land for parking exists. Logical mid-point for station along the 8.5 miles between Pottstown and Royersford. Road access adequate. Grade crossing protection necessary.

It is recommended that the second line for implementation should be the Fox Chase to Newtown service.

Hourly midday and evening service would be operated, with half-hour peak trips. The LDRs would meet all electric trains except for one in each peak hour.

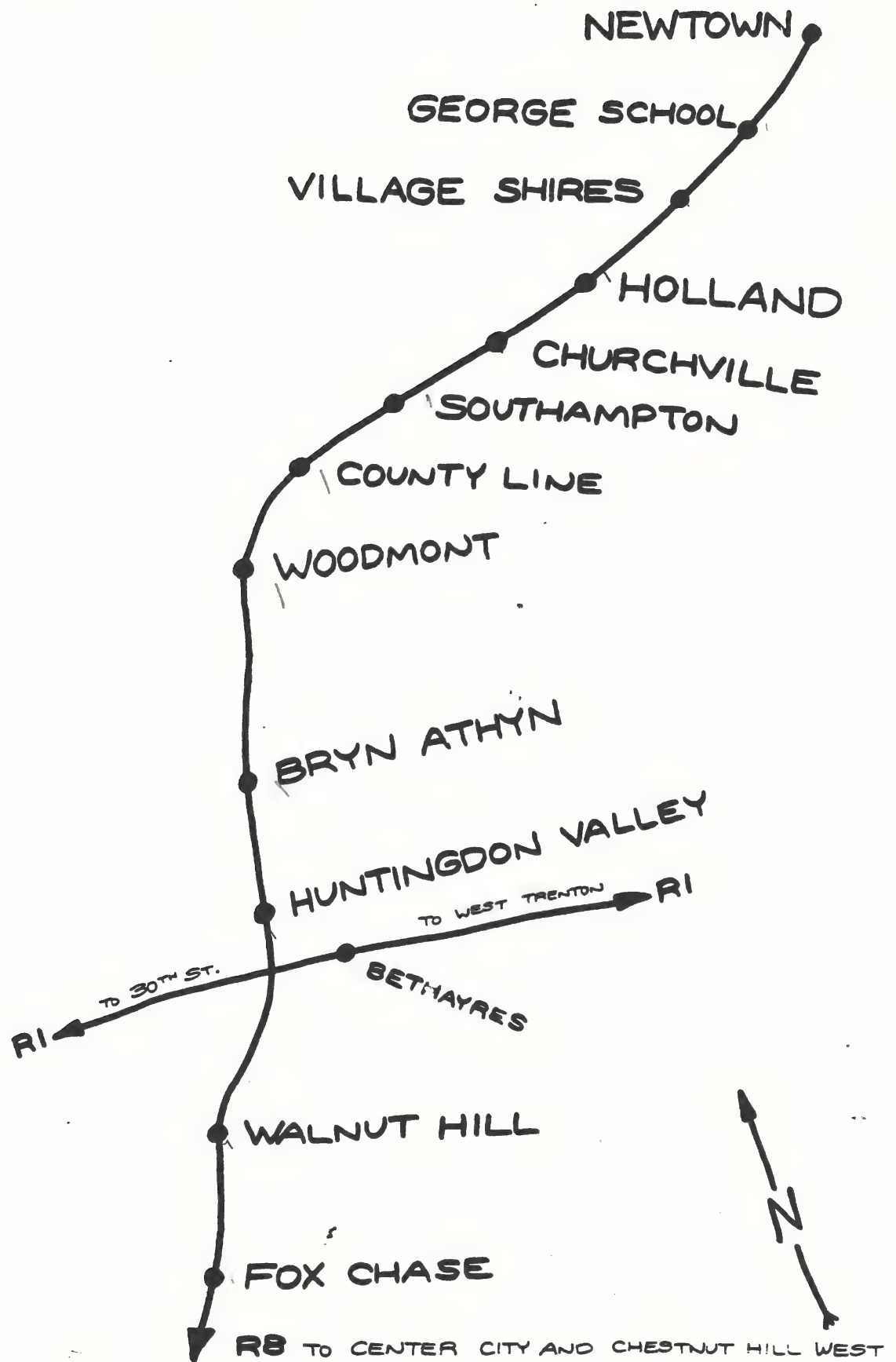
Ten years ago, 500 passengers a day used the Newtown trains. Service was always poor. There were six round trips a day, but only two of them operated in each rush hour. Between 1970 and 1980, population in the line's service area increased 40 percent, and has probably continued to rise at the same rate, according to an analysis done by the Revenue Development Department. With reliable, frequent train service, it is estimated that ridership could reach 1,300 per day.

Two passing sidings would have to be constructed with automatic switches and full signalling in order to properly operate this line.

Three of the two-unit versions of the LDRs would be required for service, plus one spare set.

On the following pages are a map, a schedule, miles and hours operated, fares and mileage.





FOX CHASE TO NEWTOWN

PROPOSED DIESEL RAILCAR SCHEDULE

<u>BLOCK</u>	<u>LEAVE</u>	<u>ARRIVE</u>	<u>LEAVE</u>	<u>ARRIVE</u>	<u>LEAVE</u>	<u>ARRIVE</u>	<u>LEAVE</u>	<u>ARRIVE</u>	<u>LEAVE</u>	<u>ARRIVE</u>	<u>LEAVE</u>	<u>LEAVE</u>
	<u>SUBURBAN</u>	<u>FOX CHASE</u>	<u>FOX CHASE</u>	<u>HUNTINGDON</u>	<u>CHURCHVILLE</u>	<u>NEWTOWN</u>	<u>NEWTOWN</u>	<u>CHURCHVILLE</u>	<u>HUNTINGDON</u>	<u>FOX CHASE</u>	<u>FOX CHASE</u>	<u>SUBURBAN</u>
	<u>STATION</u>			<u>VALLEY</u>					<u>VALLEY</u>			<u>STATION</u>
							6:03	6:15	6:30	6:39	6:44	7:20
							6:33	6:45	7:00	7:09	7:14	7:50
							7:03	7:15	7:30	7:39	7:54	8:30
1	--	--	6:51	7:00	7:15	7:27	7:33	7:45	8:00	8:09	8:14	8:50
2	6:36	7:16	7:21	7:30	7:45	7:57	8:03	8:15	8:30	8:39	8:44	9:15
3	7:15	7:46	7:51	8:00	8:15	8:27	8:33	8:45	9:00	9:09	9:14	9:50
1	8:15	8:46	8:51	9:00	9:15	9:27	9:33	9:45	10:00	10:09	10:14	10:50
3	9:15	9:46	9:51	10:00	10:15	10:27	10:33	10:45	11:00	11:09	11:14	11:50
1	10:10	10:41	10:51	11:00	11:15	11:27	11:33	11:45	12:00	12:09	12:14	12:50
3	11:10	11:41	11:51	12:00	12:15	12:27	12:33	12:45	1:00	1:09	1:14	1:50
1	12:10	12:41	12:51	1:00	1:15	1:27	1:33	1:45	2:00	2:09	2:14	2:50
3	1:10	1:41	1:51	2:00	2:15	2:27	2:33	2:45	3:00	3:09	3:14	3:50
1	2:10	2:41	2:51	3:00	3:15	3:27	3:33	3:45	4:00	4:09	4:14	4:50
3	3:10	3:41	3:51	4:00	4:15	4:27	4:33	4:45	5:00	5:09	5:14	5:50
1	4:10	4:41	4:51	5:00	5:15	5:27	5:33	5:45	6:00	6:09	6:18	6:54
3	4:40	5:12	5:21	5:30	5:45	5:57	6:03	6:15	6:32	6:41	6:46	7:22
4	5:05	5:38	5:51	6:00	6:15	6:27	6:35	6:47	7:02	7:11	7:14	7:50
1	5:45	6:18	6:23	6:32	6:47	6:59	7:05	7:17	7:32	7:43	7:48	8:24
3	6:10	6:41	6:53	7:02	7:17	7:29	7:33	7:45	8:00	8:09	8:14	8:50
4	6:40	7:11	7:21	7:30	7:45	7:57	--	--	--	--	--	--
1	7:10	7:41	7:51	8:00	8:15	8:27	8:33	8:45	9:00	9:09	9:14	9:50
3	8:10	8:41	8:51	9:00	9:15	9:27	9:33	9:45	10:00	10:09	10:14	10:50
1	9:10	9:41	9:51	10:00	10:15	10:27	10:33	10:45	11:00	11:09	11:14	11:50
3	10:10	10:41	10:51	11:00	11:15	11:27						
1	11:10	11:41	11:51	12:00	12:15	12:27						
	<u>PM</u>	<u>PM</u>	<u>PM</u>	<u>PM</u>	<u>PM</u>	<u>PM</u>	<u>PM</u>	<u>PM</u>	<u>PM</u>	<u>PM</u>	<u>PM</u>	<u>PM</u>

122084

MILES OPERATED

44 x 15.2 = 669 daily miles

HOURS OPERATED

Block #1 . . . . . 18.4 hours

Block #2 . . . . . 2.1 hours

Block #3 . . . . . 16.4 hours

Block #4 . . . . . 2.1 hours

\*39 hours

\* Deadhead miles and hours to and from depot not included.

FARES

<u>ZONE</u>	<u>STATION</u>	<u>ONE WAY PEAK</u>	<u>ONE WAY OFF PK.</u>	<u>10 TRIP</u>	<u>WEEKLY TRAILPASS</u>	<u>MONTHLY TRAILPASS</u>
2	Fox Chase	2.00	1.50	17.00	15.50	58.00
3	Walnut Hill	2.50	2.00	23.00	18.50	68.00
3	Huntingdon Valley	2.50	2.00	23.00	18.50	68.00
3	Bryn Athyn	2.50	2.00	23.00	18.50	68.00
4	Woodmont	3.00	2.00	27.50	21.50	78.00
4	County Line	3.00	2.00	27.50	21.50	78.00
4	Southampton	3.00	2.00	27.50	21.50	78.00
4	Churchville	3.00	2.00	27.50	21.50	78.00
4	Holland	3.00	2.00	27.50	21.50	78.00
5	Village Shires	3.50	2.00	32.00	24.50	88.00
5	George School	3.50	2.00	32.00	24.50	88.00
5	Newtown	3.50	2.00	32.00	24.50	88.00



MILEAGE

	<u>From Suburban Station</u>	
Fox Chase	11.6	0.0
Walnut Hill	13.3	1.7
Huntingdon Valley	14.9	3.3
Bryn Athyn	15.6	4.0
Woodmont	17.6	6.0
County Line	18.5	6.9
Southampton	19.4	7.8
Churchville	21.3	9.7
Holland	22.9	11.3
Village Shires	24.3	12.7
George School	25.5	13.9
Newtown	26.8	15.2

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

IV. ANNUAL OPERATING IMPACTS - REVENUES AND EXPENSES

Summary

Based upon the service package prepared by Operations Planning and the Ridership/Revenue Projection prepared by Revenue Development, the proposed service will cover 75% of its operating expenses from fares within 12 months from start of service, assuming the fixed facilities are in place (platforms, parking lots, signs, lighting, etc.). This service will contribute riders and revenue to the RHSL system and will help improve the overall RHSL operating ratio.

Annual Expenses: \$2,160,000 (including additional costs on electric lines to handle passengers)

Annual Revenue: 1,600,000

Ratio of Revenue to Expenses: 75%  
===

Additional daily RHSL Trips: 2,500      Average Fare: \$2.35

TOTAL BIL  
OR 26  
Sum

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

Revenue/Ridership History and Projection For Norristown - Pottstown  
Lightweight Diesel Railcar Service

Prepared By: Revenue Development Department

The attached analysis displays census data for the Norristown-Pottstown Branch Service Area. Census tracts were selected within a four (4) to five (5) mile corridor of the rail line. The selection of appropriate tracts was complicated by the barrier which the Schuylkill River presents to persons wishing to access the rail line. The selection process included all tracts in the reasonable vicinity of the line.

<sup>size</sup> Population in the service area was virtually unchanged during the 1970 to 1980 period. It is estimated that approximately 92,700 persons currently live in the Pottstown line service corridor. However, population patterns were variable, with some tracts gaining residents while others lost them. Size of Corridor?

A review of the commuting destinations of residents in the service area reveals a significant increase in area residents bound for the Central Business District of Philadelphia. A close examination shows that most of this growth was at the inner end of the lines -- particularly in tracts with access to the Paoli Line or the Schuylkill Expressway. 92,700

The 1980 Census showed 575 persons residing in the service area reporting employment in the CBD. If the employment pattern followed the general population trend between 1970 and 1980 on a tract by tract basis, the projection for current CBD bound workers would increase slightly. Looking at the growth of CBD destined workers over the decade of the 1970's, one could project approximately 930 workers from the area heading for the CBD on a typical weekday. 592?

Project to what year?  
— 1984, 85

Revenue/Ridership History and Projection for Norristown - Pottstown

- continued -

If proposed service levels are sufficient to capture one-third of this projected potential market, daily workers using the system may be estimated at 300. Adding 10% for non-work journeys to Philadelphia yield a total of about 330 persons or 660 daily trips. This is consistent with ridership in the late 1970's and early 1980's when a much poorer service pattern than that proposed was operated.

33%

If the proposed service levels are able to attract 60% of the proposed market (a reasonable assumption in view of the lack of competing rail service) then work force ridership of 550 may be estimated for daily ridership of 1,100. Adding 10% for other than work trips would yield a ridership level of just over 1,200 daily trips. This is slightly below the 1,400 - 1,600 levels experienced in the early 1970's.

VS  
60%  
1200 x Days x 2

Zone 6- Peak 4.25  
Off-Peak 2.25

Using a Zone 5 average fare of approximately \$2.45 would produce annual new revenues of approximately \$800,000, for the rail system.

1200 x 2.45 x (272) DAYS = 800,000

272 x 1/3 = 90.67  
MKT

120,000 annual trips  
x 2.45 (avg fare) = \$294,000  
VS  
\$800,000

290  
Transit  
of  
# Days

592 x 16 = 9472  
335.2 x 2 = 670.4  
x 10 = 6704  
781 x 272 = 212432  
x 2.45 = 520458.4

Riders x %Mkt x 120000 trips x 2.45 fare =  
1200 x .50 x 272 x 2 x 2.45 = 799,680



# POTTSTOWN-NORRISTOWN SERVICE AREA CENSUS DATA

1980 Census Tract	Adjustment Factor	1970 Population		1980 Population		% Change 1970 to 1980	Projected 1984	== RESIDENTS WHO WORK IN PHILADELPHIA CBD ==				
		Reported	Adjusted	Reported	Adjusted	1980	1984	1970 Reported	1980 Reported	Percent Change	1980 Adjusted	Projected 1984
Chest. Co.												
3001.01	1.00	3313	3313	2974	2974	-10.2%	2852	81	96	18.5%	96	92
3001.02	0.25	2247	562	3081	770	37.1%	885	44	159	261.4%	40	46
3005	1.00	5779	5779	5993	5993	3.7%	6082	14	140	900.0%	140	142
3006	1.00	2892	2892	2481	2481	-14.2%	2340	0	0	-	0	0
3007	1.00	5775	5775	5081	5081	-12.0%	4837	5	0	-100.0%	0	0
3008	1.00	3350	3350	3911	3911	16.7%	4173	0	24	-	24	26
3009	1.00	2806	2806	2692	2692	-4.1%	2648	17	29	70.6%	29	29
3010	1.00	4384	4384	4410	4410	0.6%	4420	7	62	785.7%	62	62
3011	1.00	3578	3578	3389	3389	-5.3%	3317	12	14	16.7%	14	14
3012.02	0.50	3071	1536	3653	1827	19.0%	1965	12	17	41.7%	9	9
3012.01	1.00	2011	2011	1086	1086	-46.0%	886	1	0	-100.0%	0	0
3013	1.00	3284	3284	4085	4085	24.4%	4484	7	0	-100.0%	0	0
3014.01	1.00	3324	3324	3114	3114	-6.3%	3035	0	13	-	13	13
3014.02	1.00	3261	3261	4050	4050	24.2%	4442	20	21	5.0%	21	23
Subtotal		49075	45854	50000	45863	0.0%	46366	220	575	161.4%	447	455
Mont. Co.												
2061.03	1.00	3125	3125	5296	5296	69.5%	6768	14	51	264.3%	51	65
2062.01	1.00	3792	3792	2454	2454	-35.3%	2108	23	0	-100.0%	0	0
2062.02	1.00	443	443	1789	1789	303.8%	3963	0	0	0.0%	0	0
2086.02	1.00	3614	3614	3055	3055	-15.5%	2866	6	11	83.3%	11	10
2087.01	1.00	2341	2341	4241	4241	81.2%	5618	0	0	0.0%	0	0
2087.02	1.00	2816	2816	3037	3037	7.8%	3132	11	0	-100.0%	0	0
2088.01	1.00	1108	1108	991	991	-10.6%	949	0	14	-	14	13
2088.02	1.00	3656	3656	3245	3245	-11.2%	3099	9	11	22.2%	11	11
2089.01	1.00	3698	3698	3416	3416	-7.6%	3312	6	20	233.3%	20	19
2089.03	1.00	4239	4239	3197	3197	-24.6%	2883	4	21	425.0%	21	19
2089.04	1.00	3071	3071	3116	3116	1.5%	3134	19	0	-100.0%	0	0
2089.05	1.00	3702	3702	3047	3047	-17.7%	2831	0	0	0.0%	0	0
2089.06	1.00	3964	3964	3912	3912	-1.3%	3891	0	0	0.0%	0	0
2090	1.00	1917	1917	1805	1805	-5.8%	1763	0	0	0.0%	0	0
Subtotal		41486	41486	42601	42601	2.7%	46317	92	128	39.1%	128	138
Total		90561	87340	92601	88464	1.3%	92684	312	703	125.3%	575	592

MP: POTTSTOWN 12/13/84

$$575 \times 125\% = 718.75$$

$$718.75 + 312 = 1030.75$$

$$1030.75 \div 5 = 206.15$$

$$703 - 312 = 391$$

$$391 \div 125\% = 312.8$$





**INTRA — OFFICE MEMORANDUM**

**TO:** E. K. Skoropowski

**Remarks:**

**FROM:** J. A. Cook *Jules*

**cc:** S. R. Milbourne

**SUBJECT:** Pottstown Ridership History

**DATE:** November 14, 1984

Attached is a workpaper with the number of passenger boardings on the Pottsville - Reading - Pottstown branch from the Fall of 1968 until the last count in the Spring of 1981.

In summary, the Pottstown - Phoenixville boards and the number of trains are:

<u>YEAR</u>	<u>INBOUND BOARDS</u>	<u>TOTAL AVERAGE DAILY PASSENGERS</u>	<u>NUMBER OF TRAINS IN EACH DIRECTION</u>
1968	731	1,462	14
1973	808	1,616	14
1974	783	1,566	14
1975	856	1,712	14
1978	368	736	7
1979	354	708	7
1980	344	688	7
1981	223	446	7

Also attached is a schedule from 1979.

JAC:lp  
Attach.



SEPTA STATISTICS  
POTTSVILLE - READING - POTTSTOWN - NORRISTOWN  
INBOUND PASSENGER BOARDS (ONE-WAY)  
(DOUBLE THESE FIGURES FOR TOTAL DAILY RIDERSHIP)

	11/68	11/73	11/74	5/75	Fall 78 (IB BOARDS)	Sprg.79 (IB BOARDS)	Sprg.80 (IB BOARDS)	Sprg.81 (IB BOARDS)
Pottsville					80 (6)	92 (6)	106 (6)	39 (5)
Schuylkill Haven					21 (6)	27 (6)	22 (6)	13 (5)
Auburn					1 (6)	7 (6)	4 (6)	1 (5)
Hamburg					13 (6)	13 (6)	14 (6)	5 (5)
Shoemakerville					2 (3)	1 (3)	3 (5)	2 (2)
Mohrsville					0 (4)	6 (4)	2 (6)	1 (4)
Lessport					1 (5)	1 (5)	0 (6)	0 (3)
Reading					106 (7)	77 (7)	117 (7)	119 (7)
Birdsboro					2 (7)	4 (6)	7 (7)	3 (7)
Monococy					0 (-)	0 (-)	0 -	0 (0)
Pottstown	300	377 (14)	365 (14)	338 (14)	180 (7)	187 (7)	174 (7)	106 (7)
Linfield	3	1 (4)	2 (4)	6 (4)	0 (-)	0 (-)	0 (-)	0 (-)
Royersford	132	149 (14)	144 (14)	174 (14)	78 (7)	72 (7)	69 (7)	40 (7)
Phoenixville	296	281 (14)	272 (14)	338 (14)	93 (7)	95 (7)	101 (7)	61 (7)
Valley Forge Park					17 (7)	28 (6)	24	16 (7)
Pottstown - Valley Forge	731	808	783	856	368	354	344	223
Pottsville - Valley Forge	-	-	-	-	594	610	643	406

(5) Indicates number of inbound trains serving the station.



**Pottsville-Reading TO PHILADELPHIA**  
MONDAYS Thru FRIDAYS Except HOLIDAYS

Train Number		POTTSVILLE	SCUTTELL HAVEN	AUBURN	HAMBURG	SHOEMAKERSVILLE	MOHNSVILLE	LEESPORT	READING (Franklin St.)	READING (Franklin St.)	BIRDSONO	POTTSTOWN	ROTTERFORD	PHOENIXVILLE	VALLEY FORGE PARK	NORRISTOWN (Delco St.)	NORTH BROAD ST.	READING TERMINAL	
50	AM	5:07	5:15	5:22	5:33	5:40	5:42	5:44	6:00										AM
2	AM																		AM
4	AM																		AM
56-6	AM	8:13	8:21	8:29	8:42	8:49	8:51	8:54	9:09	9:13	9:15	9:19	9:27	9:37	9:46	9:51	9:57	9:43	AM
58-8	AM	8:11	8:19	8:27	8:40	8:47	8:49	8:52	9:07	9:11	9:13	9:17	9:25	9:35	9:44	9:49	9:55	9:41	AM
60-10	PM	8:14	8:22	8:30	8:43	8:50	8:52	8:55	9:10	9:14	9:16	9:20	9:28	9:38	9:47	9:52	9:58	9:44	PM
66	PM	4:47	4:55	5:02	5:13	5:20	5:22	5:25	5:40	5:44	5:46	5:50	5:58	6:08	6:17	6:22	6:28	6:14	PM
68	PM	8:13	8:21	8:29	8:42	8:49	8:51	8:54	9:09	9:13	9:15	9:19	9:27	9:37	9:46	9:51	9:57	9:43	PM

☐ Bargain tickets not accepted on these trains.

**Philadelphia TO READING-POTTSVILLE**  
MONDAYS thru FRIDAYS Except HOLIDAYS

Train Number		READING TERMINAL	NORTH BROAD ST.	NORRISTOWN (Delco St.)	VALLEY FORGE PARK	PHOENIXVILLE	ROTTERFORD	POTTSTOWN	BIRDSONO	READING (Franklin St.)	READING (Franklin St.)	LEESPORT	MOHNSVILLE	SHOEMAKERSVILLE	HAMBURG	AUBURN	SCUTTELL HAVEN	POTTSVILLE	
49	AM																		AM
1-51	AM	6:13	6:20	6:34	7:01	7:09	7:17	7:29	7:52	8:13		8:29		8:35	8:38	8:50	8:57	9:05	AM
3-53	AM	10:00	10:07	10:34	10:41	10:49	10:57	11:09	11:20	11:32	11:59			11:24	11:26	11:38	11:45	11:51	AM
5-55	PM	1:00	1:07	1:30	1:37	1:45	1:53	2:05	2:16	2:28	2:40			2:14	2:16	2:28	2:35	2:41	PM
7	PM	4:38	4:45	5:09	5:16	5:23	5:33	5:47	5:58	6:12				5:34	5:36	5:48	5:55	6:01	PM
67	PM	3:38	3:45	4:09	4:16	4:23	4:33	4:47	4:58	5:12				4:34	4:36	4:48	4:55	5:01	PM
11	PM	7:00	7:07	7:29	7:36	7:45	7:53	8:05	8:16	8:28				7:34	7:36	7:48	7:55	8:01	PM
89	PM	9:30	9:37	10:00	10:07	10:16	10:24	10:36		10:59	10:59	11:15		11:27	11:29	11:41	11:48	11:54	PM

☐ Bargain tickets not accepted on these trains.

**Pottsville-Reading TO PHILADELPHIA**  
SATURDAYS and Christmas Eve, New Year's Eve, Washington's Birthday and Good Friday

Train Number		POTTSVILLE	SCUTTELL HAVEN	AUBURN	HAMBURG	SHOEMAKERSVILLE	MOHNSVILLE	LEESPORT	READING (Franklin St.)	READING (Franklin St.)	BIRDSONO	POTTSTOWN	ROTTERFORD	PHOENIXVILLE	VALLEY FORGE PARK	NORRISTOWN (Delco St.)	NORTH BROAD ST.	READING TERMINAL	
1002	AM	8:25	8:33	8:40	8:51			8:53	9:15	9:18	9:20	9:24	9:32	9:42	9:51	9:56	10:02	10:08	AM
1056-1058	AM	8:11	8:19	8:27	8:40			8:42	9:04	9:07	9:09	9:13	9:21	9:31	9:40	9:45	9:51	9:57	AM
1060-1010	PM	8:14	8:22	8:30	8:43			8:45	9:07	9:10	9:12	9:16	9:24	9:34	9:43	9:48	9:54	10:00	PM
1086	PM	4:54	5:02	5:09	5:20			5:22	5:44	5:47	5:49	5:53	6:01	6:11	6:20	6:25	6:31	6:37	PM
1088	PM	8:25	8:33	8:40	8:51			8:53	9:15	9:18	9:20	9:24	9:32	9:42	9:51	9:56	10:02	10:08	PM

**Pottsville-Reading TO PHILADELPHIA**  
SUNDAYS and Memorial, Independence, Labor and Thanksgiving Days

Train Number		POTTSVILLE	SCUTTELL HAVEN	AUBURN	HAMBURG	SHOEMAKERSVILLE	MOHNSVILLE	LEESPORT	READING (Franklin St.)	READING (Franklin St.)	BIRDSONO	POTTSTOWN	ROTTERFORD	PHOENIXVILLE	VALLEY FORGE PARK	NORRISTOWN (Delco St.)	NORTH BROAD ST.	READING TERMINAL	
2056-2006	AM	8:07	8:15	8:23	8:35			8:37	9:00	9:03	9:05	9:09	9:17	9:27	9:36	9:41	9:47	9:53	AM
2060-2010	PM	8:19	8:27	8:35	8:47			8:49	9:12	9:15	9:17	9:21	9:29	9:39	9:48	9:53	9:59	10:05	PM
2086	PM	5:44	5:50	5:57	6:09			6:11	6:34	6:37	6:39	6:43	6:51	7:01	7:10	7:15	7:21	7:27	PM
2088	PM	8:24	8:32	8:39	8:50			8:52	9:15	9:18	9:20	9:24	9:32	9:42	9:51	9:56	10:02	10:08	PM

**Pottsville-Reading TO PHILADELPHIA**  
New Year's and Christmas Days

Train Number		POTTSVILLE	SCUTTELL HAVEN	AUBURN	HAMBURG	SHOEMAKERSVILLE	MOHNSVILLE	LEESPORT	READING (Franklin St.)	READING (Franklin St.)	BIRDSONO	POTTSTOWN	ROTTERFORD	PHOENIXVILLE	VALLEY FORGE PARK	NORRISTOWN (Delco St.)	NORTH BROAD ST.	READING TERMINAL	
2056-2006	AM	8:11	8:19	8:27	8:40			8:42	9:04	9:07	9:09	9:13	9:21	9:31	9:40	9:45	9:51	9:57	AM
2060-2010	PM	8:14	8:22	8:30	8:43			8:45	9:07	9:10	9:12	9:16	9:24	9:34	9:43	9:48	9:54	10:00	PM
2086	PM	5:47	5:55	6:02	6:14			6:16	6:39	6:42	6:44	6:48	6:56	7:06	7:15	7:20	7:26	7:32	PM
2088	PM	8:25	8:33	8:40	8:51			8:53	9:15	9:18	9:20	9:24	9:32	9:42	9:51	9:56	10:02	10:08	PM

Philadelphia TO READING-POTTSVILLE																			
SATURDAYS and Christmas Eve, New Year's Eve, Washington's Birthday and Good Friday																			
Train Number		READING TERMINAL	NORTH BROAD ST.	NORRISTOWN (Detels St.)	VALLEY FORGE PARK	PHOENIXVILLE	ROVERS FORD	POTTSTOWN	BIRDSBORO	READING (Franklin St.)	READING (Franklin St.)	LEESPORT	MOHRESVILLE	SHOEMAKERSVILLE	HAMBURG	AUBURN	SCHUYLKILL HAVEN	POTTSVILLE	
1001-1051	AM	6:15	6:22	6:56	.....	7:09	7:17	7:29	.....	7:52	8:23	.....	8:39	.....	8:48	9:00	9:07	9:15	AM
1003-1053	AM	10:00	10:07	10:34	.....	10:41	10:49	11:09	11:20	11:32	12:02	.....	.....	.....	12:27	12:39	12:46	12:54	PM
1005-1055	PM	1:00	1:07	1:30	.....	1:37	1:45	1:53	2:05	2:16	2:28	.....	.....	.....	3:14	3:26	3:33	3:41	PM
1057	PM	4:47	4:54	5:17	5:24	5:32	5:40	5:52	6:03	6:15	6:28	.....	.....	.....	7:23	7:35	7:42	7:50	PM
1057	PM	5:25	5:32	5:55	6:02	6:10	6:18	6:30	6:41	6:53	7:05	7:09	7:13	7:16	7:23	7:35	7:42	7:50	PM
1059	PM	9:30	9:37	10:01	10:08	10:16	10:24	10:36	10:59	10:59	11:15	.....	.....	.....	11:27	11:38	11:45	11:53	PM

Philadelphia TO READING-POTTSVILLE																			
SUNDAYS and Memorial, Independence, Labor and Thanksgiving Days																			
Train Number		READING TERMINAL	NORTH BROAD ST.	NORRISTOWN (Detels St.)	VALLEY FORGE PARK	PHOENIXVILLE	ROVERS FORD	POTTSTOWN	BIRDSBORO	READING (Franklin St.)	READING (Franklin St.)	LEESPORT	MOHRESVILLE	SHOEMAKERSVILLE	HAMBURG	AUBURN	SCHUYLKILL HAVEN	POTTSVILLE	
2003-2053	AM	9:15	9:22	9:46	9:53	10:01	10:09	10:21	10:32	10:44	10:49	11:02	.....	.....	11:14	11:26	11:33	11:41	AM
2005-2055	PM	1:45	1:52	2:15	2:22	2:30	2:38	2:50	3:01	3:13	3:17	.....	.....	.....	3:42	3:54	4:01	4:09	PM
2057	PM	5:32	5:39	6:02	6:09	6:17	6:25	6:37	.....	6:59	6:59	.....	.....	.....	7:27	7:39	7:46	7:54	PM
2059	PM	9:30	9:37	10:00	10:07	10:15	10:23	10:35	.....	10:58	10:58	11:18	.....	.....	11:30	11:41	11:48	11:56	PM

Philadelphia TO READING-POTTSVILLE																			
New Year's and Christmas Days																			
Train Number		READING TERMINAL	NORTH BROAD ST.	NORRISTOWN (Detels St.)	VALLEY FORGE PARK	PHOENIXVILLE	ROVERS FORD	POTTSTOWN	BIRDSBORO	READING (Franklin St.)	READING (Franklin St.)	LEESPORT	MOHRESVILLE	SHOEMAKERSVILLE	HAMBURG	AUBURN	SCHUYLKILL HAVEN	POTTSVILLE	
2003-2053	AM	9:15	9:21	9:55	.....	10:07	10:15	10:27	10:38	10:51	10:56	11:09	.....	.....	11:21	11:32	11:40	11:48	AM
2005-2055	PM	1:45	1:51	2:25	2:30	2:37	2:45	2:57	3:08	3:21	3:26	.....	.....	.....	3:51	4:03	4:10	4:18	PM
2057	PM	5:32	5:38	6:11	6:16	6:23	6:31	6:43	.....	7:06	7:06	.....	.....	.....	7:31	7:43	7:50	7:58	PM
2059	PM	9:30	9:36	10:10	10:15	10:22	10:30	10:42	.....	11:06	11:06	11:26	.....	.....	11:38	11:49	11:56	12:04	PM

Subject to change				
Between READING TERMINAL and	One-Way (peak)	Burgin One-Way (off peak)	10-Trip 2 Months	Calendar Month
Valley Forge Park . . .	\$1.95	\$1.45	\$17.75	\$64.00
Phoenixville . . . . .	2.20	1.65	20.25	73.00
Royersford . . . . .	2.45	1.85	22.50	81.00
Poiststown . . . . .	2.65	2.00	24.50	88.00
Birdsboro . . . . .	3.40	2.85	30.00	108.00
Reading . . . . .	4.00	3.35	33.25	120.00
Leesport . . . . .	4.60	3.85	38.00	137.00
Mohrsville . . . . .	4.60	3.85	38.00	137.00
Shoemakersville . . . .	5.05	4.20	41.75	150.00
Hamburg . . . . .	5.05	4.20	41.75	150.00
Auburn . . . . .	5.95	4.95	49.50	178.00
Schuylkill Haven . . . .	5.95	4.95	49.50	178.00
Pottsville . . . . .	6.20	5.15	51.25	185.00

**Calendar Monthly Tickets** are valid for unlimited rides, solely by the individual purchaser, within the calendar month. Not sold on train.

**CHILDREN'S FARES:** Age 1 through 4 free (up to 3 per adult fare) 5 through 11 half-fare.

**SPECIAL SENIOR CITIZEN AND HANDICAPPED FARES**—Fare is one-half the One-Way Peak fare. Not valid on Peak Hour trains (shaded area of timetable).

For ticket refunds and fare adjustments, communicate with Manager, Ticket Refund Dept., 3025 Walnut St., Philadelphia, Pa. 19104. Should any question arise as to proper fare or ticket privileges, please pay fare requested and obtain receipt. Receipts and unused portions of tickets should be sent with request for adjustment or refund.

Read Down			Read Up		
72	62	65	65	69	
Daily	DESEN	Daily	DESEN	Daily	
PM	AM	PM	AM	PM	
5.20	5.35	Lv.	Harrisburg	Ar.	11 00
5.55	6.30		Hershey		10 20
6.23	7 01		Lebanon		9 47
7.30	8 03	Ar.	Reading	Ar	8 03
	3				3
	Daily				Daily
	AM				PM
	3 45	Lv.	Scranton	Ar	3 30
4 15	4 15		Wilkes-Barre		3 05
	4 55		Horton		2 25
	4 55	Ar	Pottsville	Lv.	1 30

**DESM**—Except Saturdays, Sundays & Holidays.  
**DESM** —Except Sundays & Holidays.

Train Bus connecting service is shown as information only. Connections are not guaranteed and trains will not be held for connecting busses which are delayed.

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

Revenue/Ridership History and Projection For Fox Chase - Newtown  
Lightweight Diesel Railcar Service

Prepared By: Revenue Development Department

The attached analysis portrays census data for the Fox Chase-Newtown Branch Service Corridor. The selected census tracts represent the area within two (2) to three (3) miles of the rail line and were chosen in an attempt to determine the potential market. The attached map displays the census tracts (denoted by hatched area). It should be noted that the service area is in close proximity to the West Trenton and Warminster lines throughout the service area.

The total population in the service area grew 39.9% in the ten year period from 1970 to 1980. Assuming that this growth pattern has continued, it is estimated that almost 68,000 persons currently live in the Fox Chase-Newtown service area. It should be pointed out that the strongest growth has been at the far end of the line in the Newtown Township and Northampton Township areas.

Examining the commuting patterns of residents in the service area, we find that in 1980, there were 1,135 persons reporting employment in the Central Business District of Philadelphia. This is an increase of almost 100% over the 1970 census data. Using the general population growth rate, it may be estimated that approximately 1,363 residents of the service area currently work in the Philadelphia CBD. If the CBD worker growth rate is used, the number might be as high as 2,190.

Assuming that the proposed service levels are adequate to capture approximately one-third of this potential market, it is estimated that between 450 and 730 persons might utilize the service to commute to work. Choosing a middle-ground work ridership of 590 persons and adding 10% for shoppers, students,



Revenue and Ridership History and Projection for Fox Chase - Newtown

- continued -

medical, social and other type passengers yield a daily total of approximately 650 people using the system, or 1300 daily trips. This does not seem unreasonable, given the population growth since the early 70's when daily ridership approached 500 trips, with much lower service levels then currently proposed.

The bulk of Fox Chase-Newtown stations are in Zones 4 and 5. Assuming an average fare of \$2.25, the annual revenue for the system generated by this service would be approximately \$800,000.

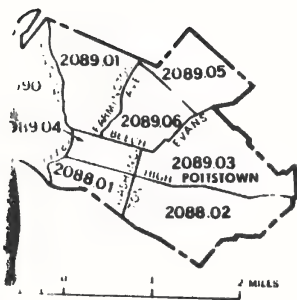
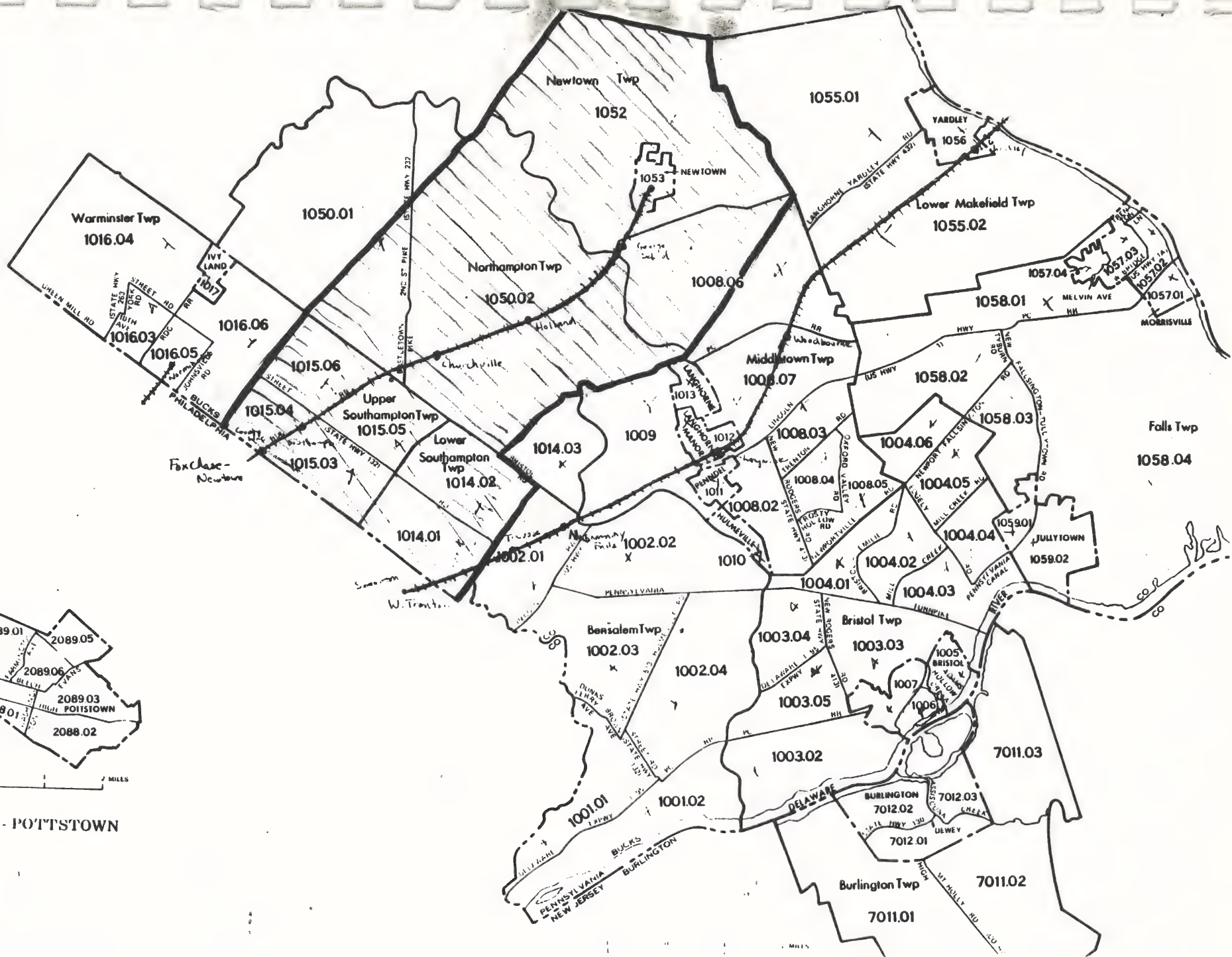
2.25  
x  
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Answer

FOX CHASE-NEWTOWN SERVICE AREA CENSUS DATA

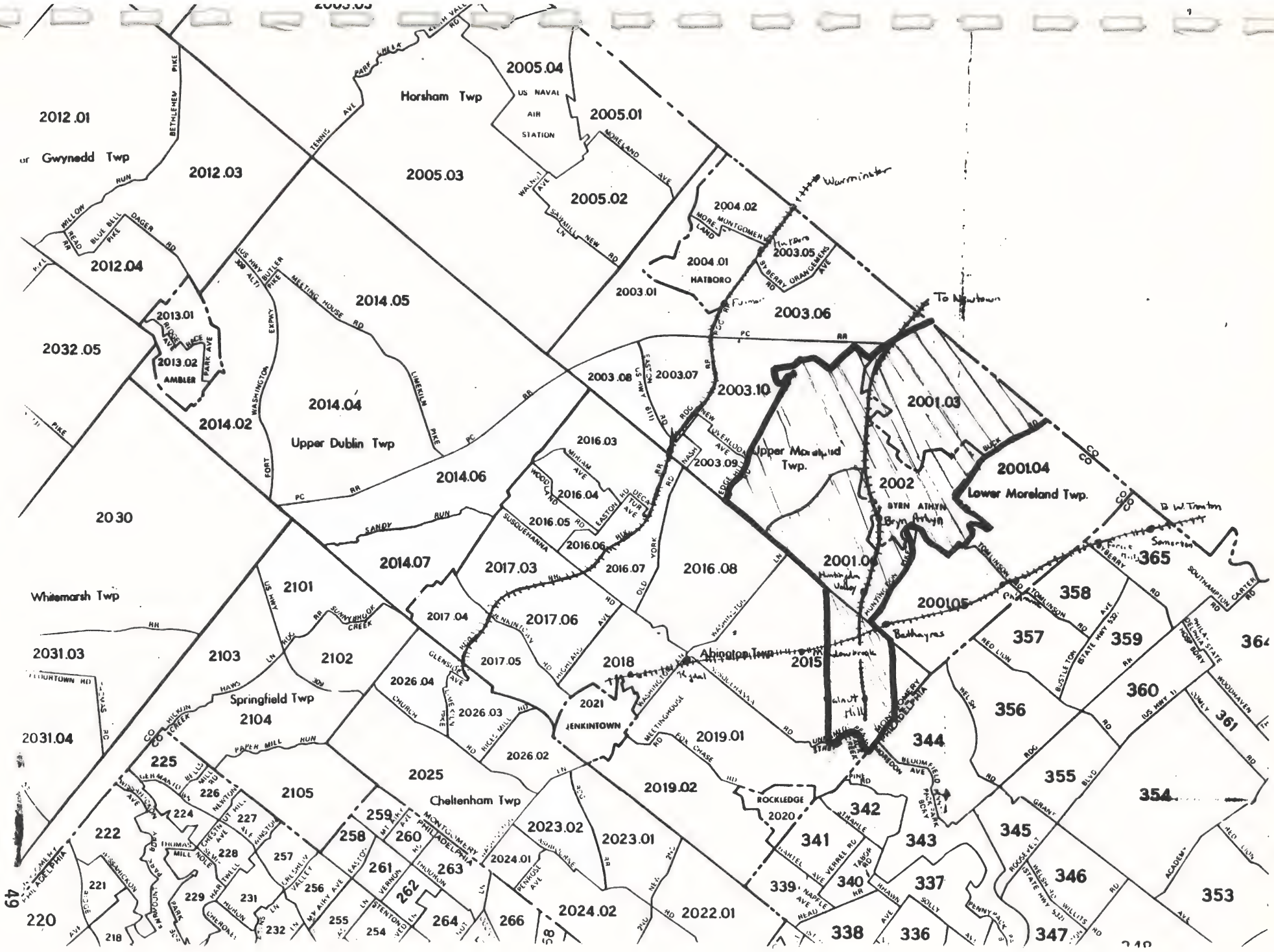
1970 Census Tract	Adjustment Factor	1970 Population		1980 Population		% Change 1970 to Projected 1980 1984		=== RESIDENTS WHO WORK IN PHILADELPHIA CBD ==				
		Reported	Adjusted	Reported	Adjusted	1980	1984	1970 Reported	1980 Reported	Percent Change	1980 Adjusted	Projected 1984
Bucks Co.												
1052	1.00	2002	2002	4473	4473	123.4%	6681	18	59	227.8%	59	88
1053	1.00	2216	2216	2519	2519	13.7%	2657	14	64	357.1%	64	68
1008.06	0.50	1251	626	2265	1133	81.1%	1500	0	40	-	20	26
1050.02	1.00	9080	9080	17852	17852	96.6%	24751	81	345	325.9%	345	478
1050.01	0.50	6727	3364	9540	4770	41.8%	5568	91	245	169.2%	123	143
1015.03	1.00	3247	3247	3190	3190	-1.8%	3168	113	60	-46.9%	60	60
1015.04	1.00	1273	1273	2798	2798	119.8%	4139	34	53	55.9%	53	78
1015.05	1.00	2481	2481	3347	3347	34.9%	3814	39	45	15.4%	45	51
1015.06	1.00	6935	6935	6471	6471	-6.7%	6298	67	89	32.8%	89	87
Subtotal		35212	31223	52455	46553	49.1%	58575	457	1000	118.8%	858	1079
Mont. Co.												
2001.03	1.00	3598	3598	4212	4212	17.1%	4500	89	98	10.1%	98	105
2002	1.0	970	970	908	908	-6.4%	885	7	18	157.1%	18	16
2001.06	1.0	1840	1840	2043	2043	11.0%	2133	50	66	32.0%	66	69
2015	0.3	4620	1155	4828	1207	4.5%	1229	120	245	104.2%	61	62
2003.1	0.3	4045	1011	2994	749	-26.0%	671	62	137	121.0%	34	31
Subtotal		15073	8574	14985	9119	6.3%	9417	328	564	72.0%	278	284
Total		50285	39797	67440	55671	39.9%	67992	785	1564	99.2%	1135	1363

MP: 'NEWTOWN' 12/12/84



ET D - POTTSTOWN





49

240



FOX CHASE-NEWTOWN RIDERSHIP  
DAILY RIDERSHIP HISTORY

<u>DATE</u>	<u>DAILY RIDERSHIP</u>
November '68	426
November '73	492
November '74	452
Fall '78	288
Fall '79	434
Fall '80	292
Fall '81	114
Fall '82	96

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

OPERATING EXPENSES

Prepared By: Finance Department

4 Mechanics @ \$30,000	\$120,000	
3 Car Cleaners @ \$20,000	60,000	
1 Timekeeper @ \$20,000	20,000	
2 Supervisor @ \$40,000 (One SEPTA, One Manufacturer)	80,000	
	<u>\$280,000</u>	
Fringe O.H. X 1.4		
	<u>\$392,000</u>	\$ 392,000

Building Operations		
Electric and Other Utilities		52,000

Fork Lift ) Operation		
Pick-Up Truck)		10,000

<u>Pottstown</u>		<u>Newtown</u>	
Operators 6.5 @ \$35,000 = \$227,500		6.5 @ \$35,000 = \$227,500	
Fringe O.H. X 1.4		✓ Fringe O.H. X 1.4	
<u>\$318,500</u>		<u>318,500</u>	637,000

Pottstown

Fuel ( <del>325,000</del> Annual Vehicle Miles) ÷ 3.5 MPG = 93,200 gals		
93,200 gals. X \$.95 gals =		88,500
Parts and Repairs @ \$5,000/Unit X 8 = \$40,000		40,000
Station Maintenance (6 locations) and Snow Removal @ \$6,000/Station		36,000
No Track/Signal costs due to Conrail Agreement-Norristown-Pottstown		
(Also applies to Reading and Pottsville segments)		0
1 additional Silverliner and 1 Passenger Attendant on Electric Service		
(\$60,000 + \$22,000)		82,000
Power		35,000

Fox Chase - Newtown

Fuel (477,000 Annual Vehicle Miles) ÷ 3.5 MPG = 136,200 gals		
136,200 gals. X \$.95 gal =		129,500
Parts and Repairs @ \$5,000/Unit X 8 = \$40,000		40,000
Station Maintenance (11 locations) and Snow Removal @ \$6,000/Station		66,000
RHSL Track and signal Maintenance Fox Chase-Newtown		
15.3 miles @ \$17,500/mile		268,000
2 additional Silverliners and 2 Passenger Attendants on Electric		
Service (\$120,000 + \$44,000)		164,000
Power		20,000

SUBTOTAL	\$2,060,000
+ 5% Contingency	<u>100,000</u>
Annual Operating Expense	<u>\$2,160,000</u>

(A)  
1/2 of the  
454,000

(B)

(C)  
281,500

(E)  
687,500

(D)  
100,000

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

**V. VEHICLE CHARACTERISTICS**

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

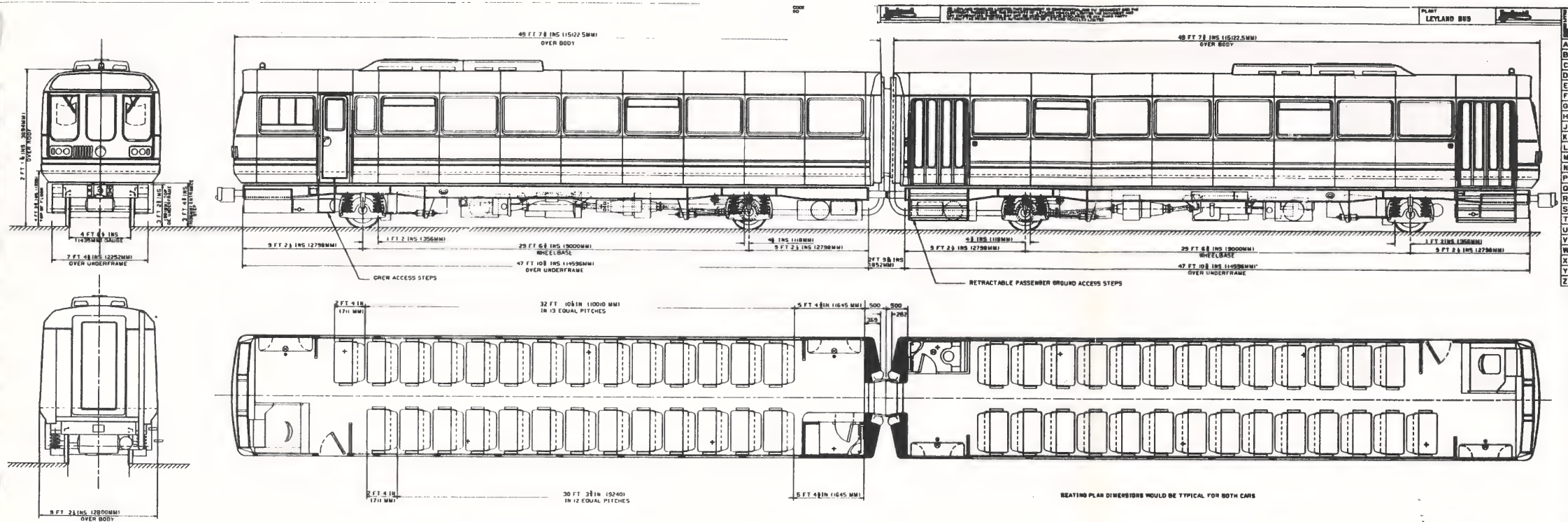
VEHICLE CHARACTERISTICS

OUTLINE SPECIFICATIONS

TEST OPERATION VEHICLES: NORRISTOWN - POTTSTOWN AND FOX CHASE - NEWTOWN

Quantity: 8 - 2 Car Train Sets - Quick Uncouple - Independently Operable  
Extra Wide Model 9' - 2-1/2"  $\pm$  (No. 142 Type)  
With 200 bhp/car Engine in Each Car  
Standard U.S. Gauge 4' - 8-1/2"  
With High/Low Doors Retractable Footsteps  
With Door Locations as indicated on plans, 3 locations each side  
With Operators Cab Left Hand Side  
With Cow Catcher  
With Sanding Gear  
With Composition Brake Blocks  
With Speedometer Calibrated for 'MPH' in addition to KPH  
With Twin Battery Pack/Sep. Power for Starting & Lighting  
With Nickel Cadmium Batteries  
With 75 W High Intensity Headlights  
With Track Circuit Assistance Device ("Exciter")  
With Exhaust Discharge Taken up Between Intermediate Ends  
With Heating & Air Conditioning (Roof Mounted, SEPTA Standard "Sutrak")  
With FRA Approved Tinted Glazing (Same as Silverliners) "Mar-Guard"  
With Additional Thermal Acoustic Insulation Package  
With American Coach & Car 2 and 2 High Back Walkover Seats (500 Style)  
With Overhead Luggage Racks  
With Toilet Module & Retention Tank (One Per 2 Car Unit)-"A" End  
With Public Address System  
With Proprietary Bar Module (One Per 2 Car Unit)-"B" End  
In SEPTA Paint Scheme  
With Mounting for Standard SEPTA Cash Fare Box (1 at Each End)  
With Plug-in Stand-by Power Capability (Engine Heat, Battery Charge,  
Minimum Temperature in Passenger Compartments of Stored Vehicles of 45°F)





KLH7891	
ALPHABETIC	NUMERIC
A	1
B	2
C	3
D	4
E	5
F	6
G	7
H	8
I	9
J	10
K	11
L	12
M	13
N	14
O	15
P	16
Q	17
R	18
S	19
T	20
U	21
V	22
W	23
X	24
Y	25
Z	26

KLH7891	
ALPHABETIC	NUMERIC
A	1
B	2
C	3
D	4
E	5
F	6
G	7
H	8
I	9
J	10
K	11
L	12
M	13
N	14
O	15
P	16
Q	17
R	18
S	19
T	20
U	21
V	22
W	23
X	24
Y	25
Z	26

# KEY TO SYMBOLS

- ⊙ - PASSENGER COMMUNICATION EQUIPMENT
- - STANCHIONS
- + - PUBLIC ADDRESS SPEAKER
- ☐ - LUGGAGE RACK

54 SEATED PASSENGERS

## BRE LEYLAND TWO-CAR 108-SEAT LIGHTWEIGHT DMU

54 SEATED PASSENGERS

Southeastern Pennsylvania  
Transportation Authority



SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

VEHICLE CHARACTERISTICS

ROLLSIGN DESTINATION

R6	Reading
R6	Pottstown
R6	King of Prussia
R6	Norristown
	Airport Via 30th Street
	30th Street Station
	Wayne Junction
R8	Fox Chase
R8	Newtown
	Jenkintown
R5	Lansdale
R8	Bethayres
R5	Quakertown
R5	Bethlehem
R5	Allentown
	Special
	Charter
	Not In Service
	North Broad Street
R5	Doylestown
R3	West Chester
R3	Media

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

VI. THE LEGAL OPINION - SUMMARY

Outside Counsel has indicated there are three possible options for SEPTA to pursue in implementing the Lightweight Diesel Railcar service and participating financially in their sales and production in the United States:

Option 1: Adhere to present Legal framework within the scope of Act 101 as it presently exists. The steps of this option as prepared by counsel are presented on the next two pages and have been assumed in the preparation of the procurement, operation, and financing procedures included in this report.

Option 2: Pursue a Joint Venture option, which although doubtful legally, does have some supporting analysis;

Option 3: Amend Act 101, inserting language authorizing a joint venture. Even if enacted, the amendment could be subject to constitutional challenge.

Assumption: Based upon the attached opinion and supporting data, SEPTA should proceed according to Option 1; that is, working within the existing framework of Act 101 following the steps outlined by counsel.

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December 6, 1984

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KATHRYN STEINBUHLER  
CAROL S. KROCH  
LAURENCE S. MILLER  
WARREN T. PRATT  
PEGGY L. SHODGRASS  
STEPHEN P. CHAMBER  
HORACE D. HALL JR.  
DANIEL S. CAINE  
GARY S. BATTISTON  
THOMAS S. SCHAUFELBERGER  
ELAINE JOHNSON JAMES  
ROGER E. THEODORE  
JOAN M. LOURE  
BRENDA FRASER  
WAYNE S. MOORE

JOHN CHESNEY  
EDWIN M. BROWN JR.  
WILSON M. BROWN III  
THOMAS J. LEACH  
CYNTHIA J. SILES  
JOSEPH A. SHOSTETSKY  
KAREN A. FARMER  
THEODORE P. SETO  
LORETTA M. KELLY  
STEPHEN POWICE  
JAMES S. GEORGE  
AMANDA H. SHAP  
FRED GREENBERG  
VIRGINIA A. GIBSON MASON  
GARY S. ARON  
JOSEPH L. SLOVINSKI  
MICHAEL L. SASSERMAN  
JOHN M. WHITLOCK  
FRANCIS P. GREELY  
JOHN P. LIPWIT III  
T. ANDREW CULBERT  
FRANCIS S. HOFFMAN  
BARBARA S. FRASER  
W. STEVEN WOODWARD  
JAMES A. MATTHEWS III  
SHARON L. KLINGELSMITH  
THOMAS P. DALE  
EDWARD S. GRANT  
HARVEY S. MOOREHEAD  
LOUIS T. SOLOVICH  
EVELYN S. BERENSON  
CHERIE SILVER  
KATHLEEN HENNINGER  
MARY H. ANDERSON  
KAREN S. FOX

\* ADMITTED IN DISTRICT OF COLUMBIA  
† ADMITTED IN NEW YORK  
‡ NOT ADMITTED IN PENNSYLVANIA

COUNSEL  
CHARLES L. BROCK  
MARTIN J. OPPENHEIMER

JOHN C. BULLITT  
1949-1983

HENRY S. DRINKER  
1904-1964

Mr. James A. Archibald  
Treasurer  
Southeastern Pennsylvania  
Transportation Authority  
841 Chestnut Street  
11th Floor  
Philadelphia, PA 19107

Dear Jim:

We have prepared three documents in connection with the proposed lightweight diesel railcar project:

1. An outline of possible steps constituting a legal framework for the project. Each step would, of course, have to be accomplished in accordance with Act 101.
2. A memorandum of law setting forth the results of our research, which suggests that it is doubtful that SEPTA has the power (or could have the power under the Pennsylvania Constitution) to become an equity participant in a private joint venture. Pages 7-8 of the memorandum provide some analysis supporting the proposed legal framework.
3. A proposed amendment to Act 101 containing language authorizing a joint venture. As the memorandum of law indicates, however, such an amendment could be subject to constitutional challenge.

Very truly yours,

*HSH*  
Henry S. Hilles, Jr.

HSHjr:lik  
Enclosures  
cc: Joseph F. Keener, Jr., Esquire (w/enc.)  
Mr. Eugene K. Skoropowski (w/enc.)



December 6, 1984

- Step I - BRE-Leyland establishes an American company, Associated Rail Technologies, Inc.
- Step II - SEPTA participates in a lease agreement which provides for vehicles, parts and initial start-up costs to be used for the SEPTA system. Associated Rail makes local preparations for the assembly and maintenance of vehicles in Philadelphia.
- Step III - The lessor executes an agreement with Associated Rail Technologies in a form and content approved by SEPTA. An order for vehicles is placed (based upon SEPTA specifications) and related plant improvements are commenced.
- Step IV - SEPTA acquires title to property in the City of Philadelphia sufficient for the main assembly plant and running maintenance.
- Step V - SEPTA modifies the structure as necessary for the assembly and maintenance of vehicles. SEPTA leases the entire facility to ART to perform work for SEPTA. As part of the lease agreement, SEPTA shall receive a fee per unit sold to other eastern U.S. properties. This fee will be restricted for use on RHSL improvement projects.
- Step VI - Assembly of vehicles by Associated Rail under contract to SEPTA's leasing company begins at the SEPTA plant. As SEPTA vehicles are completed and placed in operation, Associated Rail may use their successful operation in advertising. Associated Rail concurrently solicits orders east of the Mississippi.
- Step VII - SEPTA utilizes its revenue service with the diesel vehicles as a part of the ART sales effort, and reaps the benefit accruing from such sales.

DEC 06 P.M.

MEMORANDUM TO: Henry S. Hilles, Jr.

FROM: Katherine E. Blackburn *CB*

DATE: November 30, 1984

RE: SEPTA - Legislation

You have asked me to research alternatives for SEPTA in seeking to obtain certain diesel railway cars from a British company and to receive additional benefits from acting as an initial user of the cars in the United States, such as by entering into a joint venture with the company or leasing facilities to the company. I have not found any cases directly on point, i.e., delineating to what extent SEPTA may enter into a joint venture with a private company. I have found a web of constitutional provisions, case law and Pennsylvania attorney general opinion which seem to render a direct joint venture inadvisable and to impose limits on a lease arrangement.

#### I. Constitutional Limitations

The Pennsylvania Constitution provides in Article 8, Section 8 that "[t]he credit of the Commonwealth should not be pledged or loaned to any individual, company, corporation or association nor shall the Commonwealth become a joint owner or stockholder in any company, corporation or association." Article 9, Section 9 provides a related restriction; it forbids the General Assembly to "authorize any municipality or incorporated district to become a stockholder in any company, association or corporation, or to obtain or appropriate money for, or to loan its credit to, any corporation, association, institution or individual." Section 9 continues, however, "The General Assembly may provide standards by which municipalities or school districts may give financial assistance or lease property to public service, industrial or commercial enterprises if it shall find that such assistance or leasing is necessary to the health, safety or welfare of the Commonwealth or any municipality or school district."

Both of these provisions are consistent with the general rule that taxation can only be used for public purposes, and that state legislatures accordingly cannot raise or appropriate money for a purely private, speculative purpose. See, MacQuillin, Municipal Corporations §36.02-03 (2d ed.); Tosto v. Pennsylvania Nursing Home Loan Agency, 460 Pa. 1, 331 A.2d 198 (1975) (legislature has no consti-

tutional right to create public debt or lay tax in order to raise funds for private purpose; such prohibition intended to preclude speculative forms of financing such as 19th century financing devices for assisting railroads which were in need of investment capital.)

## II. Case Law

In judging a public entity's right to engage in various types of private businesses both in Pennsylvania and in other jurisdictions, courts tend to consider two factors; first, the existence and clarity of statutory authorization for the business, and second, whether the business responds to a particular public need or constitutes a public use or benefit. If a statute expressly authorizes the activity, it is presumptively constitutional. If the activity responds to a public need, it is likely to be found constitutional.

For example, under industrial development statutes asserting strong public needs, municipal and state authorities have been allowed to provide strong financial incentive for, and even to operate, various types of traditionally private industries. See, e.g., Green v. Frazier, 253 U.S. 233, 40 S. Ct. 499 (statute establishing public flour mills, grain elevators, warehouses, and state bank reflects appropriate public use due to inefficient industries in North Dakota); Farlcone v. Danville, 313 Ky. 468, 232 SW 2d 80 (state could develop and run industrial enterprises where legislature found predominantly agricultural economy detrimental and unbalanced); Gripentrog v. Wahpeton, 126 NW 2d 230 (ND) ; Albritton v. Winona, 181 Miss. 75, 178 So. 799. Even without express statutory authorization, municipalities have been allowed to provide ice to citizens in hot climates. Denton v. Denton Home Ice Co., 119 Tex. 193, 27 SW 2d 119 and to appropriate money for celebration of city anniversaries, Sambar v. Hadley, 291 Pa. 395, 140 A. 247 (1928).

Moreover, once an activity is deemed a proper public function, a public entity may carry it out in many ways. A city authorized to pave streets may maintain its own asphalt plant to supply itself, and might even be able to supply other townships or public entities with asphalt for a fee. Borgelt v. Minneapolis, 271 Minn. 249, 135 NW 2d 438. A city authorized to contract with a street passenger railway for services may insert a provision in the contract whereby it shares in excess profits of the railway as long as it gives some consideration for such profits (i.e., forbearance from other assessments) so as to avoid becoming



Henry S. Hilles, Jr.  
November 30, 1984  
Page Three

a partner of the company. Brode v. Philadelphia, 230 Pa. 434 (1911). A metropolitan transit authority may subcontract with private carriers as necessary to meet the public's mass transit needs. MBTA v. Boston Safe Dep. & Trust Co., 205 NE 2d 346 (1965).

### III. Application to SEPTA

#### A. Statutory Provisions.

SEPTA's powers derive wholly from its enabling statute. City of Philadelphia v. Southeastern Pa. Transportation Authority, 1 Pa. Commonwealth 101, aff'd 441 Pa. 518 (1971). Under that statute, SEPTA is a body corporate and politic which exists

"for the purpose of planning, acquiring, holding, constructing, improving, maintaining, operating, leasing either as lessor or lessee, and otherwise functioning with respect to, a transportation system in the metropolitan area, and, outside of such area, whether within or beyond the boundaries of the Commonwealth to the extent necessary for the operation of an integrated system and for the provision of all group and party services which can be provided by transportation systems subject to acquisition under this article."

55 P.S. §600.303(a).

Further, SEPTA "ha[s] and may exercise all powers necessary or convenient for the carrying out of the aforesaid purposes, including but without limiting the generality of the foregoing," a list of specified rights or powers. Id. at 303(d). Within the list of specified powers, several bear on the current issue. Subsection (d)(5) provides:

(5) To acquire, purchase, hold, lease as lessee and use any franchise, property, real, personal or mixed, tangible or intangible, or any interest therein necessary, or desirable for carrying out the purposes of the authority, and to sell, lease as lessor, transfer and dispose of any property, or interest therein, at any time acquired by it. In exercising any of the powers granted by this paragraph, the authority shall consider, inter alia, the same value factors as provided in Section 309.53 in determining compensation under the exercise of eminent domain:



Henry S. Hilles, Jr.  
November 30, 1984  
Page Four

Subsection (d)(8) provides:

(8) To appoint officers, agents, employees and servants, to prescribe their duties and fix their compensation, subject, however, to specific provisions of this article;

Subsection (d)(14) provides in relevant part, "To make and execute all contracts and other instruments necessary or convenient to the exercise of the powers of the authority; subsection (d)(17) provides, "To do all acts and things necessary for the promotion of its business, and the general welfare of the authority to carry out the powers granted to it by this article or any other statute"; and subsection (d)(23) provides, "To lease property or contract for service, including managerial and operating service, whenever it can more efficiently and effectively serve the public by so doing, rather than conducting its own operations with its own property".

Other relevant provisions are 55 P.S. §600.307, which provides, "The authority shall have power to acquire by purchase, condemnation, lease, gift or otherwise, any property and rights useful for its purposes and to sell, lease, transfer or convey any property or rights when no longer useful or exchange the same for other property or rights which are useful for its purposes"; and section 312(a), which provides in relevant part, "The authority shall have power to purchase equipment such as cars, trolley buses and motor buses and may execute agreements, leases and equipment trust certificates in the form customarily used in such cases to effectuate such purchase." Two limitations on SEPTA's powers may apply. These are section 315, which grants SEPTA power to invest its funds in U.S. or Pennsylvania obligations, or, for sinking fund purposes, in bonds or certificates of SEPTA<sup>1</sup>; and Section 322(g) which provides "contracts for the sale or lease of real property owned by the authority shall be awarded after competitive bidding as shown in subsection (b) except where contract is entered into with the commonwealth or any political subdivision or agency or instrumentality thereof or with the United States government or any agency or instrumentality thereof."

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<sup>1</sup>Section 339 provides for the deposit of certain special funds in a "short-term investment portfolio"; that phrase is not defined and might be construed as amplifying the investment power provided in section 315.

B. Analysis

SEPTA and British Leyland desire to come to some arrangement within the limits of SEPTA's authority by which SEPTA will buy diesel railway cars from Leyland, the parts will be shipped to the United States and assembled in a small (approximately six employees) plant within the Philadelphia City limits, many of the cars thus assembled will be for the use of SEPTA, and extra cars produced will be sold to other public and private transportation companies within the United States, for profit.

The constitutional limitations set forth in Section 1 counsel against a direct joint venture whereby SEPTA provides capital and shares profits of a jointly owned manufacturing plant in the United States. There are two theories under which Article 8, Section 8 or Article 9, Section 9 would apply to SEPTA. First, SEPTA could be found to fall directly within the constitutional definition of "the Commonwealth" or "municipality" or "incorporated district". The Attorney General of Pennsylvania has opined that Article 8, Section 8 applies to the State Employee Retirement Board to prevent it from investing in ways not explicitly authorized by statutory directive. 1983 Op. Atty. Gen. No. 5, 13:27 Penn. Bull. 2094 (July 2, 1983). Specifically, the Board could not enter into a limited partnership or joint venture with a private corporation.<sup>2</sup> The Attorney General's opinion

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<sup>2</sup>71 Pa. C.S. §5931 authorized the Board to invest its money in certain preferred and common stock; the Attorney General in addition to opining against the joint venture, did not order the Board to liquidate its extant portfolio as violating the Constitution because of (1) the presumption of constitutionality accorded statutes and (2) interpretation of like constitutional provisions by other courts allowing "the purchase of well-established corporate securities in the interest of prudent handling of funds, when the underlying purpose is to invest for the benefit of the state" and not "for the purpose of aiding in the construction or maintenance of the [investee] company". Id. at 2096 (emphasis added).

includes the Retirement Board in the word "Commonwealth" because court decisions have referred to the Board as an "integral part of the Commonwealth" or an "arm of the state".<sup>3</sup> One case under Article 9, Section 9 loosely refers to the purpose of the section as preventing "possible partnership between a municipality or subordinate division of the state and . . . private corporations". Commonwealth v. Schlager, 18 Lack. 16, 14 Del. 256 (1917). Second, under the theory that the Legislature cannot delegate to another the authority to use public funds in a way that the Legislature itself cannot use those funds, SEPTA could be found to be exceeding the scope of its statutory authorization should it expend funds traceable to public funds on a private, for-profit joint venture.

None of the cases I have found which cite either constitutional provision has involved an entity such as SEPTA as the public lender; all cases involve acts by the General Assembly, a city, or a school district.<sup>4</sup> Given the Attorney General's application of Article 8, Section 8 to the Retirement Board, however, and SEPTA's status as an agency dependent at least in part upon public funds, and "exercis[ing] the public powers of the Commonwealth as an agency and instrumentality thereof" (55 P.S. §600.303 creating transportation authorities), it is possible that one constitutional provision or the other would be found to apply to them.

Even if the constitutional limitation were found not to apply to actions by SEPTA, perhaps because the money it would use would not be classifiable as public funds,<sup>5</sup>

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<sup>3</sup>Although the Attorney General's opinion did not mention this fact, a key distinction between the Board and SEPTA may be that the Board's funds, while they derive from employer contributions, are guaranteed by the Commonwealth. The Commonwealth's credit is therefore more directly at risk when the Board undertakes a joint venture than when SEPTA undertakes a joint venture.

<sup>4</sup>Many cases exist allowing the Legislature to appropriate to Authorities such as SEPTA, stating that such Authorities are not private bodies. See, e.g., Johnson v. Pennsylvania Housing Finance Agency, 453 Pa. 329 (1973).

<sup>5</sup>It is worth noting that to the extent SEPTA may use public powers to generate tax-exempt obligations it might be seen as effectively using public funds because it reduces the amount that would otherwise flow into the treasury.



any person seeking to enjoin SEPTA from carrying out a joint venture with Leyland would still have a strong argument that such a venture is inappropriate because it falls outside SEPTA's statutorily authorized activities. Such person could argue that SEPTA is authorized to function only with respect to its own transportation system, and to make authorized investments of funds it is not using. Any portion of a joint venture with Leyland that was not providing material for SEPTA's use would not be a function with respect to SEPTA's own transportation system. Rather, it would be a function with respect to another state, city or country transportation system. Nor would such portion of the joint venture fall within the authorized investments clause. Such operation would be an investment - it would be an operation into which SEPTA entered simply to make money rather than to obtain equipment - and it would be neither an obligation of the U.S. or Pennsylvania, nor a "short-term portfolio investment" (see n.1).

If the situation required, arguments could be made that the venture was not held for investment - rather, the venture was the only method by which SEPTA could get the unique product Leyland offers, and sales to other companies were only a minor part of the overall SEPTA program. However, it is likely that both SEPTA and Leyland can achieve their objective without entering into a joint venture because SEPTA can certainly engage in many parts of such an enterprise while making sure that everything it pays for is for its statutory public function (i.e., its own transportation system only), and that it receives payment from Leyland for any time or facilities Leyland uses in servicing other clients.

SEPTA can clearly prepay British Leyland for diesel cars to be shipped to the United States.<sup>6</sup> In addition SEPTA should be able to set up a plant in the city, on its property, for the assembly of such cars for its own use. Such an activity would be "functioning . . . with respect to its transportation system", (55 P.S. 600.303(a)) and would be an act that SEPTA considered "necessary for the promotion of its business and the general welfare of the authority" (Section 303(d)(17)). Moreover, such action is similar to that approved in the Borgelt case, where the City of Minneapolis, in order to conduct its duty to pave the

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<sup>6</sup>No bidding would be required since the cars are a unique product.



Henry S. Hilles, Jr.  
November 30, 1984  
Page Eight

streets, manufactured its own paving material. Since such a use benefits only SEPTA and its public transportation system, it would not be a private venture which the Constitution or enabling statute would proscribe.

SEPTA could also contract with Leyland to provide a team of assembly workers<sup>7</sup> for its assembly plant, if it concluded that such a contract would provide efficient services (Section 303(d)(23)). SEPTA could buy the cars that came out of the plant for its own use, and could lease the plant to Leyland and Leyland's worker team. Section 322(g) does provide that, in leasing property, SEPTA is required to accept competitive bids. It is likely that because Leyland would not need to modify the structure or obtain any equipment it would be prepared to offer a higher price than any other bidder. It is also likely that in return for SEPTA's provision of the opportunity to get the business started, the lease payments would be calculated on the high side of the property's worth. It is not, however, an absolute certainty that Leyland would submit the highest bid. It might be possible to render the lease less attractive to other potential tenants in some way, perhaps by implementing a kind of "time-sharing" lease, e.g., a 50 week lease where for the remaining two weeks a year SEPTA would have the right to come in and assemble its own railbus cars, and the building thus could not be altered.

In sum, SEPTA can contribute capital by prepaying for cars, setting up an assembly building, and contracting out car assembly to Leyland employees. SEPTA can obtain financial benefits from leasing the facilities to Leyland for assembly of other cars when SEPTA is not using them. A direct joint venture, however, is prone to attack on statutory and perhaps constitutional grounds.

KEB/rbj

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<sup>7</sup>While it is possible that SEPTA employees could work the plant, and their services be leased to Leyland, such questions as allocating employee benefits would be difficult to resolve, and the enterprise would have more the feel of a joint venture to a reviewing court than would probably be advisable.

AN ACT

Amending the act of July 10, 1980 (P.L. 427, No. 101), entitled "An act empowering and authorizing the Department of Transportation to establish and administer certain grant programs for the betterment of mass transportation systems and facilities throughout the Commonwealth; providing for state grants to transportation companies, municipalities, counties, or their instrumentalities and to agencies and instrumentalities of the Commonwealth for studies, research, demonstration programs, promotion programs, purchase of service project, and capital improvement projects under certain conditions; authorizing grants by counties or municipalities in metropolitan areas to local transportation authority to function in each metropolitan area consisting of any county of the first class and all nearby counties within a radius of twenty miles of any such first class county. As a body corporate and politic for the purpose of establishing an integrated mass transportation system with all pertinent powers including, but not limited to, leasing, acquiring, owning, operating and maintaining a system for, or otherwise providing for, the transportation of persons, authorizing the borrowing of money and issuance of bonds therefor, conferring the right of eminent domain on the authority; altering the jurisdiction of the public utility commission, authorizing the acceptance of grants from federal, state and local governments, limiting actions against the authority and exempting it from taxation, authorizing counties and municipalities to enter into compacts for the financing of each authority and to make appropriations in accordance with such compacts, creating a citizen advisory committee, conferring exclusive jurisdiction upon certain courts with respect to matters relating to such authority, empowering each authority to function outside of the metropolitan area under certain terms and conditions.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

SECTION 1: The act of July 10, 1980 (P.S. 427, No. 101), known as the "Pennsylvania Urban Mass Transportation Law" is amended by adding:

Section 343

Notwithstanding any other provision of this Act, it shall be within the purpose of an authority, and an authority shall have the power, to create or own or invest in a private corporation or other private entity which engages in the manufacture, sale, distribution or maintenance of machinery or equipment used or useful in mass transportation, whether or not such machinery or equipment is used by the authority itself, provided, that the board of the authority determines that such action would be in the best interests of the authority.

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

VII. THE FINANCING PLAN AND RECOMMENDED ACTION

**How would SEPTA participate in the purchase, production and sales of these vehicles?**

As SEPTA is the most likely U.S. rail property to implement their use in extended service in the short term (during the Schuylkill Expressway Project), and as SEPTA has the necessary work rules already in place to demonstrate the economic viability of these "LDR" vehicles, it is the most logical property to be effective in promoting the sales and marketing of the vehicles, largely just by operating them in revenue service.

For this reason, plus staff belief that if these vehicles perform favorably, they can capture an entirely new market for regional rail service in the Philadelphia area as well as in other smaller sized cities. There is also a larger opportunity for SEPTA to reap on-going financial benefits inherent in the domestic production/assembly and sales of these vehicles in the United States.

**Step I**

BRE-Leyland has recently established an American company called Associated Rail Technologies Inc. (ART). SEPTA proposes to participate in a ten-year lease agreement (with options to extend) for the acquisition of vehicles, and other start-up improvements associated with the procurement of these railcar vehicles, and the operation of the initial service.

**Step II**

SEPTA proposes to provide the necessary facilities to ART for the assembly and maintenance of the equipment to be utilized in the operation of the initial SEPTA



### **Step II (continued)**

service. Following the completion of the initial SEPTA order of vehicles, ART would also train personnel for the assembly and maintenance of these LDR vehicles which may be destined for use on other properties in the United States. The lease agreement concept would be utilized to permit SEPTA to acquire the vehicles within a short lead time and make all start-up improvements. This concept is not new and has been utilized for rail equipment acquisitions for decades.

### **Step III**

SEPTA would make the fixed LDR facilities available to ART for contract vehicle maintenance on our operating units, thereby providing economical vehicle maintenance with personnel employed and trained by the manufacturer. In addition, this facility in Philadelphia would become a major location for sales and assembly of vehicles purchased in the United States for use east of the Mississippi. The shipment of vehicles and parts to the United States would utilize the Port of Philadelphia, and American flag carriers. A major sales location, assembly plant, parts distribution center, and maintenance training school, would thereby be established in the City of Philadelphia, most likely in the Hunting Park area, adjacent to our rail yard at Roberts Avenue, Wayne Junction.

### **Step IV**

ART utilizes the SEPTA service as its marketing tool in soliciting additional vehicle orders in the United States. In addition to the lease, SEPTA reaches agreement with ART on a percentage of profits above a certain amount or fixed fee, in consideration of SEPTA making its initial investment in the fixed facilities. SEPTA income generated from the sale of this vehicle to other properties in North America would be utilized to make plant improvements in the RHSL system. SEPTA is in a unique position to help "sell" these vehicles, since a potential customer

#### **Step IV (continued)**

could see and ride on a vehicle which is in revenue service, with SEPTA's modern workrules which can take full advantage of single-man operation of the cars. Any agreement to proceed with this project is contingent upon the willingness of RHSL labor to operate the vehicles as proposed, with one-man operation.

With the present policy direction of the federal administration towards private sector involvement in mass transportation, and limited supply of public funds, plus the support of UMTA and the FRA for the LDR vehicle, and the modest capital cost of the equipment compared to other types of rail cars, it would appear that these vehicles will be extremely attractive for new commuter rail operations in other North American cities in the future.

Operations Planning has identified the proposed initial service recommendations. The Finance Department recommends that SEPTA get into the business of acquiring, operating and promoting these vehicles. We believe there is both a service benefit to SEPTA as well as long-term financial benefit to the overall system and to the region.

#### **Recommended Action**

Based upon the opportunities for positive service and revenue impacts, it is recommended that staff be instructed to proceed with preparations for use of the LDR vehicles on the SEPTA system in a manner consistent with the operating plan presented in this report (Norristown-Pottstown and Fox Chase-Newtown). Operations, Rail Equipment Department, Real Estate, Legal, Regional High Speed Line, Labor Relations, Facilities and Finance should initiate whatever actions are necessary to implement the service plan prepared by Operations Planning.

SEPTA should arrange to lease the vehicles and make associated improvements to operate the service recommended by Operations Planning as detailed in Section III.

**Recommendation (continued)**

This effort should be undertaken with a goal of implementing the Pottstown service program before the end of Calendar 1985, with the Newtown service to be implemented as soon thereafter as possible.

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

INITIAL START-UP COSTS AND FINANCING

In order to operate the initial service detailed in this report as rapidly as possible, and under the most favorable terms allowed by law, it is proposed that the initial eight LDR vehicle sets and related facilities be acquired and financed through conventional means, not utilizing State or Federal capital funds. A total start-up cost of \$10 million is projected for both Pottstown and Newtown services.

As this proposed service is SEPTA's initial step towards reentering the diesel rail market, it is proposed that the vehicles and related facilities be leased. The initial lease period would be ten years, with annual lease costs being calculated net of and depreciation or other tax benefits available to private enterprises. The expected annual lease expense to SEPTA for this initial project is estimated at \$1.4 million, given current market conditions.

As a lease expense, similar to the rental paid to the City of Philadelphia for the Broad Street Line, these costs would be allowable operating expenses under Act 101 and Act 49.

In addition, SEPTA shall seek operating funds from the Pennsylvania Department of Transportation for the initial three year period for the Pottstown service in connection with the Schuylkill Expressway reconstruction project.



SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

INITIAL START-UP COSTS

Prepared By: Finance Department

VEHICLES

Pottstown - Norristown

3 2-Car Units @ \$325,000/Single Car

Fox Chase - Newtown

3 2-Car Units @ \$325,000/Single Car

Spare

2 2-Car Units @ \$325,000/Single Car

16 Cars @ \$325,000	=	\$5,200,000	
8 Units Delivered Ready-To-Run	=	200,000	
8 Units Partially Assembled in Philadelphia	=	120,000	
		<u>\$5,520,000</u>	\$ 5,520,000

REHAB STATIONS/TRACK

Pottstown - Norristown - 6 Stations

Platforms, Lighting

Signs and Shelters (Bus Type)

Platforms:	Wood Curb (Ties)	)	\$	12,000	
	10' Wide Blacktop	)			
	200' Long	)			
Shelters:	(Bus Type)	)			
	2 Per Station @ \$5,000 each	)		10,000	
	Signs @ \$5,000/Station	)		5,000	
	Lighting @ \$2,000/Station	)		2,000	
	Parking Improvements @ \$10,000	)		10,000	
	1 Wooden Pedestrian Crossing	)		3,000	
			\$	<u>42,000</u>	
			X 6 Stations =	\$	252,000

Fox Chase - Newtown - 11 Stations

@ \$42,000/Station

\$	462,000	462,000
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Maintenance and Service

Running Repairs - Set-Up Shop

Washing & Fuel Facilities

1 Fork Lift 1 Pick-Up Truck

	200,000
--	---------

Acquire & Rehab Facility for Permanent

Central Assembly, Maintenance and Repair Shop

	1,800,000
--	-----------

Crew Training and Qualifying

	100,000
--	---------

Install 2 600' Passing Sidings on Newtown Line

Locations to be Identified by Operations Planning

"Y" Turnouts with Spring Switches, Block Signal

	<u>350,000</u>
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SUBTOTAL

	\$ 8,684,000
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10% Contingency

5% Promotion and Marketing

	800,000
	<u>400,000</u>

TOTAL PROJECT COST

	<u>\$10,234,000</u>
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SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

VIII. PROPOSED IMPLEMENTATION SCHEDULE

- |                |   |
|----------------|---|
| January 1985   | <ul style="list-style-type: none"><li>● Discussion with Board Budget and Audit Committee</li><li>● Board Railroad Committee</li><li>● Negotiations with Conrail for use of stations initiated.</li></ul>  |
| February 1985  | <ul style="list-style-type: none"><li>● Discussion with City, Counties and Citizen Advisory Committee</li><li>● Board action approving program</li><li>● Negotiations with RHSL labor for operation initiated and concluded</li><li>● Arrange for lease terms</li></ul>   |
| March 1985     | <ul style="list-style-type: none"><li>● Order placed for initial eight two-car train sets</li><li>● Notification to Conrail of service; operating arrangements finalized</li><li>● Plans for station and parking facilities initiated</li><li>● Maintenance facilities identified (sites and buildings)</li><li>● Marketing program planned</li></ul> |
| April 1985     | <ul style="list-style-type: none"><li>● Building sites, station sites and parking lot sites assembled, agreement executed</li><li>● Agreements executed on maintenance and servicing</li></ul>  |
| May 1985       | <ul style="list-style-type: none"><li>● Marketing program reviewed and approved</li><li>● Station and parking lot improvements started</li><li>● Improvements to maintenance facility initiated</li></ul>   |
| June 1985      | <ul style="list-style-type: none"><li>● Improvements complete to maintenance facility</li><li>● Fueling and support services completed</li></ul>  |
| July 1985      | <ul style="list-style-type: none"><li>● Initial two-car train set arrives, finish assembled in Philadelphia</li><li>● Vehicles tests by manufacturer</li></ul>  |
| August 1985    | <ul style="list-style-type: none"><li>● Initial operator training</li><li>● Demonstration runs for officials, dignitaries and other interested parties</li></ul>  |
| September 1985 | <ul style="list-style-type: none"><li>● Completion of platforms, parking lots and other improvements</li><li>● Second two-car train set arrives, finish assembled in Philadelphia</li></ul>   |
| October 1985   | <ul style="list-style-type: none"><li>● Finish sign and lighting installation at stations</li><li>● Complete all training and qualifying of operators</li><li>● Final two initial two-car train sets arrive, finish assembled in Philadelphia</li></ul>   |

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

**VIII. PROPOSED IMPLEMENTATION SCHEDULE**

- continued -

- |               |  |
|---------------|--|
| November 1985 | <ul style="list-style-type: none"><li>● Install shelters at stations</li><li>● Initiate test service</li><li>● Commence marketing campaign</li></ul> |
| December 1985 | <ul style="list-style-type: none"><li>● Revenue service commences</li></ul>  |
| 1986          | Set up assembly facility, assemble four units for Newtown service, complete station work, test vehicles, train operators and initiate service.       |

SOUTHEASTERN PENNSYLVANIA TRANSPORTATION AUTHORITY  
A PROPOSAL TO OPERATE LIGHTWEIGHT DIESEL RAILCARS

**IX. RECENT PUBLICITY ON PROTOTYPE**

New Orleans News Clippings  
(Times-Picayune, New Orleans, LA)



## Jefferson Report

# All aboard the Kenner Railbus

By JAMES GILL  
East Jefferson bureau chief

**T**he Railbus had appeared dead so often in recent months that Kenner Mayor Aaron Broussard claimed its inaugural run this week was more remarkable than the resurrection of Lazarus.

Since Broussard was chiefly responsible for the Railbus' Kenner to New Orleans run, it perhaps would be indicative to speculate with whom Broussard might have been comparing himself.

Not really. The Railbus is unmistakably Broussard's baby. But he was quick to credit the political wiles of Sen. Russell Long, Rep. Bob Livingston and state Sen. Hank Lauricella for getting it on track.

Long and Lauricella persuaded Illinois Central Gulf to reduce insurance requirements that prevented the Railbus from rolling on schedule Nov. 1. Livingston secured federal grants for a study that Broussard hopes will lead to a permanent Railbus service next year.

The Railbus — manufactured by the British consortium BRE-Leyland — is a bus body mounted on a self-propelled rail chassis.

Its five-week experimental runs from Rivertown to the Union Passenger Terminal may foreshadow a revolution in met-

*Its five-week experimental runs from Rivertown to the Union Passenger Terminal may foreshadow a revolution in metropolitan travel habits, Broussard says.*

ropolitan travel habits, Broussard says.

For anyone reliant on public transit from Kenner to New Orleans, the 25-minute Railbus ride is a godsend.

But Broussard hopes people who hitherto wouldn't have been caught dead on public transit will recognize the Railbus as an appealing alternative to congested highways.

As he envisions it, businessmen relax with their Wall Street Journal as the Railbus whisks them to work. The chances of that happening would doubtless be increased if the 25 miles per hour speed limit were raised.

A permanent service initially would run from Rivertown to Loyola Avenue with a stop at Clearview.

But, if extended in one direction, it could go to New Orleans International Airport — if a spur were built close to the terminal — and beyond to LaPlace. Commuters from Slidell and eastern New Orleans who

now travel by auto might latch onto the Railbus as an easier way to cross the Industrial Canal if the Railbus route also were extended in another direction.

The development of commuter rail service in the New Orleans area may be inevitable. Increasing levels of traffic cannot forever be accommodated with wider roads and new bridges.

Even though Interstate 10 in East Jefferson is due to get a couple of extra lanes, major arteries are still likely to be chock-a-block mornings and evenings.

However, parking and driving in the New Orleans area have not yet reached the nightmarish stage that has forced big-city commuters to go by rail. And it would require a major change in attitude for many people to abandon their automobiles.

But if cars offer privacy and a haven from the elements, the railcar provides a refuge from the kamikaze drivers of New Orleans.

Moreover, the public transit commuter has developed into a

recognizable species in major American and European cities.

The more gregarious specimens have been known to form railcar bridge or poker groups. Even wine-tasting clubs have been reported. In time, the Railbus might also turn into a kind of social hub.

If the feds are impressed with the Railbus experiment, Broussard expects the Urban Mass Transit Administration to come up with 75 percent of the money for the Regional Transit Authority to introduce a permanent service.

It won't be for any lack of promotional effort on Broussard's part if it doesn't work. He is inviting assorted businessmen and VIPs for special trips and encouraging them to write glowing letters in support of the concept.

A Sugar Bowl special is also planned, and the Railbus' preview runs were arranged with a fair amount of hoopla.

The experimental run is obviously too brief to produce a mass conversion to rail among Kenner's commuters. But the Railbus, which is relatively cheap to buy and operate, represents a rare example of boldness and innovation in New Orleans area mass transit.

Its success would be a feather in Broussard's cap if not quite his apothecosis.

# Stanley, Livingston explore Jefferson on Kenner Railbus

By LISA MARTIN  
East Jefferson bureau

T.P. 12/12/84

Stanley and Livingston explored territory Tuesday they'd never seen before, but it wasn't in the jungles of Africa.

Ralph L. Stanley, administrator of the federal Urban Mass Transit Administration and Rep. Robert Livingston, R-La., saw Jefferson Parish through the windows of the Kenner-New Orleans Railbus.

"This is a part of the parish I've never seen before," Livingston said.

Livingston stood for most of the 30-minute trip from New Orleans to Kenner, though he was on crutches because of recent foot surgery.

Stanley flew into New Orleans for the afternoon to present the Regional Transit Authority with a \$35,000 federal grant to help operate and study the Railbus. He also got a first-hand look at the project Kenner hopes the authority will help pay for and make a permanent service.

Stanley said the Railbus may have a good chance of becoming permanent.

"I'm optimistic," he said. "This is one of the best demonstration projects we have nationwide."

Stanley said whether the Urban Mass Transit Authority gives future financial assistance to the commuter service will depend on operating costs and public response.

"With this type of service, the rail corridor already exists, and there is only one operator, so the costs may be fairly low," he said. "And the ridership has been very encouraging over the first week."

The RTA study, which will affect the Urban Mass Transit Authority's decision, should be ready in two months, Stanley said.

The Railbus service began Dec. 8. It has been about half-full on most of its morning runs, and about one-third full during afternoon runs, Kenner Mayor Aaron Broussard said.

"And the weekend runs have been phenomenal," he said. "Last



Rep. Robert Livingston, left, talks to Kenner Mayor Aaron Broussard aboard the Railbus.  
STAFF PHOTO BY DONALD STO

weekend we had to get buses to take the overflow. On one run Saturday afternoon we had more than 125 people."

The Railbus seats 40 people

and has room for 30 more standing.

About 35 passengers, in addition to the local and federal officials, took the Tuesday afternoon

trip to Kenner, which left a half hour early to accommodate Stanley's schedule.

Those passengers included:

See RAILBUS, A-1

DEC 17 1984



T.P. Editorial  
7 12/12/84

## The Railbus potential

**A** lot more may be riding on the Illinois Central Gulf tracks between Kenner and the Union Passenger Terminal than one Railbus on three round trips a day for a five-week trial run. This modest demonstration project could be the forerunner of a major rail commuter system extending from the Central Business District into Jefferson Parish and eastern New Orleans.

New Orleans has never been considered a good prospect for heavy rail transit, for it has lacked the population density over a widespread area necessary to support the considerable investment. But the potential of the rail rights-of-way zeroing in on downtown New Orleans for future commuter corridors has been recognized since the 1930s, a heyday of modern city planning.

But light rail commuting seems to be a realistic prospect as our metropolitan area expands, and it is that concept that the Railbus demonstration is publicizing. The Railbus is a large bus body — capacity about 70 passengers, including standees — mounted on a self-propelled railroad chassis. It is, in essence, a muscular version of the graceful St. Charles Avenue streetcar, the oldest continuously operating urban rail line in the world.

When the ancestral St. Charles line began, it ran from downtown to the town of Carrollton through a lightly populated suburbia. A Railbus service with frequent,

but not too frequent, stops running from burgeoning Kenner, the state's sixth-largest city, through River Ridge and Metairie to downtown, with bus connections included in the fare, could be a present-day equivalent. The route could also be extended to the airport, which would be a major, long desired advance.

A similar service operating on existing railroad tracks through eastern New Orleans could ease the traffic crunch as that area expands. Rail commuting, at acceptable fares and level of service, is far more attractive than bus service, which, unless it has exclusive lanes or other special facilities, is part of the street traffic and not decisively competitive with cars. And it is the person who would otherwise drive a car, rather than the non-driver, that rail commuting services aim for.

The current demonstration is due to the combined effort of Kenner Mayor Aaron Broussard, who has just arranged the transfer of Kenner's bus system to the Regional Transit Authority, the RTA and the federal Urban Mass Transit Administration. Thus it is sponsored by the three groups that would be able to make regular service a reality if all agreed it was worth the attempt. Federal financial aid to local transit systems is shrinking rapidly, but regional systems get priority for what money is available. That is one reason why the "R" in the RTA should become comprehensive as soon as possible.